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Pontiac's 10th Anniversary

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PONTIAC SET FOR NEW HIGH

Tom-Tom

By

Chris Sinsabaugh

Author
of
"SPARKS"
and
"IN THE PINK"

THIRD OF THE cars owned by this particular branch of the Sinsabaugh tribe was an Oakland—a Model K, a big brute of the vintage of 1909, on which my two-cylinder Reo was taken in trade by Arthur Robbins, the Chicago dealer. That Oakland had one of the few left-handed motors I ever saw. And by left-handed I mean you had to spin her larboard way, whereas other engines swung to starboard. Even for those days the Oakland stood out for its fine body lines, its hill-climbing ability and "guts"—family traits noticeable in the Pontiac of today. She could do everything and she served valiantly as the official car for my publicity committee in the promotion of the Chicago Automobile Club's Cobe Cup road race at Crown Point, Ind., that year, the first bit of road racing in the central west.

* * *

SO YOU SEE it is sorta bred in the bone with me, this affinity for Oakland, and it is but natural that it is carried along to this second generation of that family, Pontiac, which, with this issue of ADN, is celebrating its 10th anniversary. Old Grandpop Oakland woulda been mighty proud of the youngster had he lived to this great day.

* * *

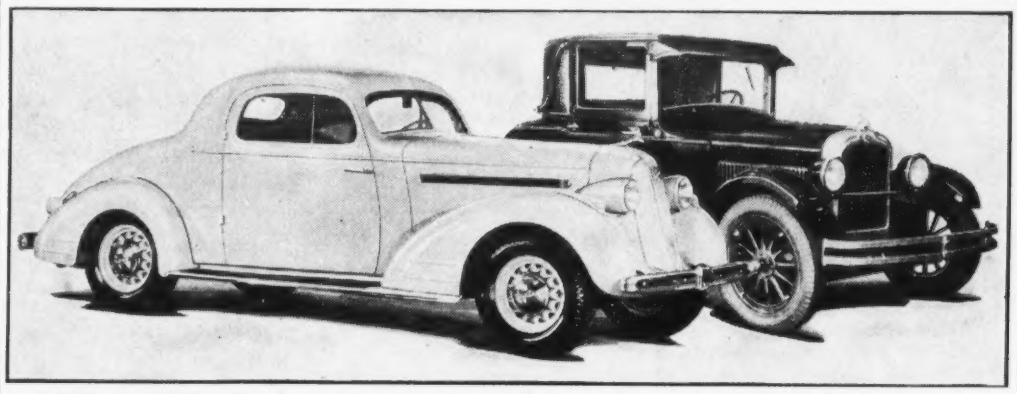
ADMITTING THIS tie which binds, I want to do a bit of tom-toming in the column as to what the present generation at the factory has done to place Pontiac in the foremost ranks of its price class. For which I give due credit to Harry Klingler and I attribute his success first to Klingler himself and his uncanny ability to surround himself with the right sort of executives who know their stuff and who are filled with that "one for all, all for one" spirit, without which team work is impossible.

This is particularly true as applied to the sales staff and in that Pontiac has its "four horsemen," whose devotion to their work is most unusual. Among the "four horsemen" I include Klingler, for despite the fact that he is president, he still is so sales-minded as to warrant the inclusion. And why shouldn't he be, when you recall his great success as sales manager of Chevrolet, a job he was taken from to head Pontiac?

* * *

AND THEN THERE are A. W.

(*Continued on Page* 45, *Col.* 1)



SIDE BY SIDE. The first Pontiac coupe and the modern car of the same model. And the old one cost more money. Such is progress.

Pontiac Achieves Record

Pontiac Sales Continue Rise Above Jan., 1935

January retail sales of Pontiac cars continue to surpass the records of a year ago. During the first 10 days this month 2,254 new cars were delivered by dealers compared with 1,423 in the same period of 1934.

Deliveries suffered somewhat, due to the New Year holiday, but are expected to gain their full momentum by the end of the second period. Sales department executives look for a material increase in January and February sales corresponding months of a year ago.

The momentum gained following the announcement of 1936 models last fall resulted in total retail sales for November and December of 25,435 units an all-time record for the last two months of the year.

With the increased public reception that already has been accorded the second edition of the Pontiac Silver Streak models and the running start with which it has entered the new year, there is little question in the minds of company executives that 1936 sales will far outstrip those of last year.

Klingler Leaves With Simpson To Tour West

Pontiac's president and general manager, H. J. Klingler, and C. P. Simpson, assistant general sales manager in charge of the West, left the first of this week for a swing through a section of the Mississippi Valley agricultural region.

Stops and meetings with factory zone managers and dealers are scheduled for Des Moines, Minneapolis and Milwaukee.

1,200 Dealers Doubled '35 Sales As Against 1934

More than 1,200 Pontiac dealers doubled or more than doubled their business in 1935 as against 1934, it was indicated by an early check of the year's performance.

Out of 24 zones in the company's field set-up, half of them, who had tabulated their last year's dealer activity at the time of going to press, already listed more than 600 dealers who had at least doubled their business in 1935.

This performance provided the industry with one of its star sales activities last year, and definitely linked the Silver Streak with the volume leaders in the industry.

Outstanding dealer records were compiled in every single section of the country, and in several instances zones reported a longer list of dealers who had tripled their business than those who had doubled it. Practically every sales district also noted examples of dealers who had sold four or more times as many cars in 1935 as in 1934.

A remarkable phase of the year's sales summary is that nearly every dealer who held the Pontiac franchise through 1934, against which a 1935 performance comparison could be made, won a place on the merit roll.

Many other dealers, recently added to the retail organization but not members of it in 1934, and therefore not eligible for a sales doubling comparison, compiled 1935 records truly phenomenal as against the previous performances in their zones of influence.

Typical of such selling effort is

(*Continued on Page* 47, *Col.* 1)

Sales Doubled In 18 States, Reports Show

That sales would be doubled seemed indicated as soon as registrations for the first 10 months of the year were available. At that time J. L. Johnson, manager of organization and analyzation, reported:

"New car registrations for 10 months of 1935 show that in 18 states Pontiac has doubled or more than doubled last year's volume for the same period. When we look at how all the other cars have been doing in those 18 states, we see that Pontiac's increase is double, triple, quadruple and even in one state 14 times as great as that of the total low price class.

"Here are the 18 states:

State	% of Increase 10 Mo., 1935 Over 10 Mo., 1934 Pontiac	Total Low Price Class
Arizona	154%	37%
Arkansas	155	11
California	165	54
Colorado	110	29
Idaho	138	57
Indiana	116	61
Iowa	102	66
Kansas	103	49
Louisiana	119	12
Michigan	144	42
Minnesota	194	69
Nevada	104	39
Ohio	115	28
Oregon	150	67
South Dakota	129	88
Tennessee	123	29
Utah	132	54
Wyoming	108	42

"To present the whole picture to those skeptics who think that we are presenting only the rosy side, Pontiac's increase in volume in the total United States is more than twice as great as all the low price cars combined. Pontiac per cent of increase was 77 per cent as compared with the

(*Continued on Page* 46, *Col.* 5)

Record-Breaking Year Foreseen As 1936 Sales Climb

10th Birthday Finds Company Holding Sixth Place in Sales

By WILLIAM C. CALLAHAN
Managing Editor ADN

Pontiac stands today on the threshold of its 11th year of operation. With a first 10-year record that gives the company the unique position of having to share with only one other company the distinction of having built over 1,000,000 cars in the first 10 years following the introduction of the line, the outlook for the future is most encouraging.

Pontiac comes to 1936 with a product of proved ability that has won wide public acceptance. This is evidenced by the fact that during November and December just past, which followed the introduction of new models for 1936, sales mounted to 14,148 and 11,287 respectively. These figures set a new high mark for these months in Pontiac history.

Aside from the product itself, the program of advertising, sales promotion and dealer co-operation which has been developed for the future, gives promise of lifting sales of the company to the high level of, if not above, the heydays of 1928 and 1929. Effective steps to aid dealers in moving their used cars to keep pace with the accelerated new cars sales at this time of year are being taken through the medium of a factory junking plan which was announced last week in Automotive Daily News and which is described on page 56 of this issue.

Other features include more

(*Continued on Page* 39, *Col.* 1)

Berend Names Feb. 3 for Next Ad Conference

The next Pontiac dealer advertising meeting has been called by Advertising Manager F. A. Berend for Feb. 3. Fifteen representative dealers and three or four company zone managers from widely separated sections of the country will gather at the factory to discuss current advertising problems and to get an advance glimpse of future advertising copy.

Factory executives and dealers who have attended monthly advertising meetings in the past report that a fine exchange of ideas is brought out at the meetings and that both dealers and advertising heads arrive at a better understanding of better ways of making advertising help to sell Pontiac cars.

Pontiac Claims Most Modern Plant in the Industry

$30,000,000 Building Has 1,800 Car a Day Capacity

One of the reasons why Pontiac has been able to make sales records is the production facilities of its plant—the ability to keep pace with the retail demand. The huge collection of buildings with a capacity of 1,800 cars a day is one of the marvels of the industry.

The story of the $30,000,000 plant and its feature is interesting, but perhaps more interesting is the story of its conception and its construction.

The factory owes its existence to the fact that almost immediately after Pontiac was announced, General Motors officials inspected the original assembly building, which was then turning out both Oaklands and Pontiacs, and decided that the old building could not satisfy the demand for the new cars.

Only seven months later finished cars began rolling down the assembly line. It took a few months to draw up the plans and the actual construction of the plant attracted the attention of the engineering and construction world.

Visioned Conveyor

The plant was built in an outlying section because the Fisher Body plant was only a quarter of a mile away. Engineers visioned an overhead, enclosed bridge with a chain conveyor carrying finished bodies to the assembly line. Bodies from the Fisher plant are accurately timed to reach the chassis coming down the assembly line, doing away with truck hauling.

The original site was a rough, rolling tract of land covering several hundred acres. To the townpeople it looked like an impossible location for an automobile plant. But when hundreds of tractors and thousands of men started grading and leveling the ground while another crew surveyed for sewer and drain locations, the site began to look feasible. The size of the tract may best be imagined when it is pointed out that the drainage system includes six miles of sewers, two miles of sewer pipe and two miles of drain tile to carry away storm water and plant waste.

When everything was ready for construction, the greatest worry for the contractor, the Austin Co. of Cleveland, was men. The major portion of the city was already engaged in building cars. Austin brought in thousands of out of town workers. Camps were set up similar to army barracks and when the morning whistle sounded the entire area was alive with workers. The buildings went up so fast that workmen finishing one job were almost chased away by those who followed to install machinery. Five thousand carloads of materials were needed to construct the main building. The largest steel sash order in history was placed for the job, along with the largest order ever placed for cement tile roofing.

Employed Three Shifts

Beginning with the cement work for the foundations, three shifts of men were employed. The main shift worked during the day light hours and employed approximately 2,000. To speed up cement pouring, the concrete was shot from elevated towers to trucks running on the roofs of the building and carried to the walls.

Three buildings constitute the unit. The first, the motor manufacturing plant, is a single story steel frame structure of the monitor type, 530 feet wide and 880 feet long. Unique in the construction is the bay spacing, which is on 40-foot centers with aisles 30 feet wide. Later, when the building was completed, four Pontiac chassis, with extended wheelbases and open bodies for passengers, were used to carry visitors through the plant, the wide aisles facilitating steering. At the west end of this building is a basement, 200 feet wide and 480 feet long, reached by ramps.

Quarter Mile Long

The assembly building is 180 feet wide and three stories high. In length it lacks only 62 feet of a quarter of a mile. The basement is the same length. In this structure the assembly lines carry the chassis along until it meets the conveyor from the Fisher plant to complete the car. All parts and material needed in assembly are dropped from overhead assembly line storage sections to the three chassis lines below. The synchronization of the parts and chassis reflects the care and study of plant engineers to effect economy of time.

The car storage building is 432 feet wide and 762 feet long. In its construction a new type of truss design was adopted with the result that the aisles are 56 feet wide with car storage bays 20 feet deep, providing pre-shipping storage space for thousands of cars. In this building is located the export shipping department which boxes the cars for overseas orders.

Within the plant yards there are 10 miles of railroad with loading space for 500 freight cars at one time. Adequate switching facilities are provided. Within the buildings themselves there are more than three miles of railroad tracks. On one side of the south building, 6,000 frames can be stored. They are lifted from the cars, stored in tiers by bridge type cranes and in turn shifted over to the assembly lines. There are six overhead electric cranes throughout the plant, all of 10-ton capacity.

Called Daylight Plant

The Pontiac plant is known as the daylight plant. Half a million square feet of glass was used. The skylights alone for all buildings are over one mile in length. With every wall practically solid glass and all interior surfaces painted white, a minimum of electric light is used.

Additions have been made from time to time, and the plant now contains over 4,000,000 square feet of floor space. Today, eight years after the first car came down the line, it is considered the most modern plant in the industry.

JERRY FARNSWORTH, one of the country's outstanding portrait painters, was chosen to execute the striking replica of Chief Pontiac on the front cover. Farnsworth is noted for his brilliant likenesses.

Open house week was held shortly after the plant got into full swing. Since few of the families of the workmen had ever seen where dad or brother worked, officials decided to let the people of Pontiac, Detroit and the suburbs see an up to date automobile plant in operation. Invitations were sent out and newspaper advertisements announced the dates. All invitations called for 7 o'clock in the evening. To show the plant operating in all its departments the workmen were given a change of hours. Production started at noon instead of 7:30 a.m. and continued until 10 p.m.

Visitors Jammed Plant

The opening night General Motors officials and the entire sales and engineering staff of the company attended. Fifteen thousand other visitors jammed the aisles. Each succeeding night similar crowds attended and visitors driving from points out of Pontiac found themselves in traffic jams.

Those who managed to get in found entertainment and interest aplenty. One section of the north building was cleared off for a dancing floor. A band made up of all Oakland-Pontiac employes furnished the music. Refreshments were served free and several tons of coffee, cakes and ice cream were served each night. The open house of Pontiac will long be remembered as an outstanding event in the history of the town.

General Motors Proud Of Pontiac's Success

By ALFRED P. SLOAN jr.
President, General Motors

I am happy to take this occasion to extend to Harry J. Klingler and his co-workers in Pontiac my own congratulations on the 10th anniversary of the introduction of the first car bearing the name Pontiac.

General Motors views the achievements of Pontiac with pride. Pontiac and its predecessor company, the Oakland Motor Car Co., have been important members of the General Motors family for more than a quarter of a century. In the pioneer days and in the years that followed, the organization which now produces the Pontiac car made substantial contributions to the development of the automobile.

Since 1926, its progress has been particularly important. At the present time, Pontiac has one of the most efficient and modern automobile plants in the world. Its engineering staff has an enviable reputation in the automotive world. Its management and its employes have worked together, shoulder to shoulder.

Pontiac's present product has added greatly to the 1936 standards of comfort, dependability and beauty, and the Pontiac organization is contributing in an important way to the success of General Motors.

Million Pontiacs in 111 Months Sets Up Record

Pontiac No. 1—Jan. 7, 1926; Pontiac No. 1,000,000—April 3, 1935.

With 1,000,000 cars in 111 months, Pontiac hung up a record for all cars above the lowest price field. Only once before in the history of the industry has it been done, and then by a lower priced car. It must be remembered, too, that five of the last nine years have been depression years.

All in all, Pontiac officials are mighty proud of their record.

Even in its first years, Pontiac showed it was due for quick progress and belonged in the volume field by producing 76,783 cars and thereby setting a first-year mark ahead of anything the industry had previously known.

The highest year's output since the Pontiac debut was in 1928, when 210,000 rolled off the assembly line. Recessions saw annual production drop to the lowest point in the history of the car during 1932. Gradual increases have since been registered and the 1935 calendar year output will exceed 150,000 cars.

Whole City Proud

Pontiac officials weren't the only ones who were proud of the record. The whole city of Pontiac, Mich., turned out en masse for the celebration and declared a civic holiday. The commemoration was divided into a three-part program: A luncheon for leading General Motors and Pontiac Motor officials; a parade of old and new cars from Pontiac to Detroit and public inspection of the plant.

W. S. Knudsen, GM executive vice-president, was principal speaker at the luncheon and paid tribute to the co-operation that had made the 1,000,000th car.

Took Hard Work

Pontiac's President Klingler expressed his appreciation for the fine work evidenced between Pontiac citizens and the company and commended the efforts of workers and managers before his time which led up to the 1,000,000th car.

"Much hard work has been done before my time, over the past nine years, to make this 1,000,000th Pontiac," he said. "I am paying tribute to all past managers and workers. We just happened to be here when the 1,000,000th car came off the line.

"As time goes on, we will continue to do what we can to deserve your friendship and co-operation," he concluded.

MOST MODERN PLANT of Pontiac Motor Co. Finished in 1927 makes it the newest complete plant in the industry. Cost over $30,000,000. Floor space of 4,000,000 square feet.

Gilpin's Doctrine is 'Goodwill to Dealers'

Pontiac Stands Among Leaders, Says Grant

By R. H. GRANT
Vice-President of General Motors in Charge of Sales

Pontiac is a comparatively new name in the automobile industry. Yet as I write this message, Pontiac is assured sixth place in the industry, and may even take fifth place, for 1935, its 10th year of existence. It seems to me that this is sufficient reason for being extra cordial in congratulating the members of the Pontiac organization on Pontiac's 10th anniversary.

Pontiac was born during a period of heavy buying; but it had hardly had time to digest its early successes before it entered along with the rest of the industry, the trying years which followed 1929.

Now as it reaches its 10th anniversary, it stands solidly placed among the leaders of the industry—among cars whose names reach back to the very beginning of the industry itself.

It had been my privilege to watch Pontiac from its begining—to know intimately some of the problems it has faced—to see how it has come into the current era of increased buying with a fine product and a highly respected name.

And so I speak most sincerely when I extend to the members of the organization my congratulations and good wishes on the occasion of Pontiac's 10th anniversary.

Chief Pontiac Portrait Was Paid for by Pennies

Doubtless, the most carefully executed portrayal of the great Indian warrior, Pontiac, chief of the Ottawas, who fought and flourished in the middle of the 18th century, is the recent work of a well-known New York artist, Jerry Farnsworth, a reproduction of which is the motif for the cover design of this 10th anniversary Pontiac edition.

Completed just before Christmas, the life-sized original hangs in the main administration building of the Pontiac Motor Co. It is the gift of the citizens of the City of Pontiac, and was presented only last week by a committee headed by Harold Fitzgerald, editor and publisher of the Pontiac Daily Press and accepted for the company by H. J. Klingler, president.

The city and surrounding country are rich in the lore of the early American Indian. It was Chief Pontiac's base of operations and a small island in the center of Orchard Lake, five miles from the city, marks the secluded haven to which the great red man retired between his campaigns which covered the entire lower Great Lakes region.

Was Happy Choice

It was a happy choice on the part of the founders of Pontiac Motor Co. to select this famous name and Indian head motif which has been carried out through the 10 years that have elapsed.

To the Pontiac Daily Press goes the credit for the idea of a permanent record in the form of an authentic portrait of the chief as a token of the esteem in which the people of the city hold the motor company which bears its name.

It was proposed through the columns of the Daily Press that the painting should be the gift of the whole city. And so a penny subscription campaign was launched. The response was generous and immediate. As a result, almost 90,000 pennies were collected.

Many artists were considered and investigated before Farnsworth was invited to do the work. The result, unquestionably, justifies his selection.

After he received his commission to paint the Pontiac portrait, artist Farnsworth spent two weeks in intensive study of his subject before touching the canvas.

Every step in the execution of the work, as well as the completed painting, was submitted to the Museum of Natural History and the Museum of the American Indian in New York for their approval of its authenticity.

Coloring Difficult

One of his most difficult jobs, the artist explained, was to make the work colorful and yet accurate, because the Ottawa tribe did not make much use of brilliant colors except in small details of the costume.

For his theme he chose Chief Pontiac's meetings with Robert Rogers in 1760. At that time the Chief was most inclined to be friendly with the white man. Robert Rogers had been dispatched to take possession of Detroit on behalf of the British. Pontiac objected to the further invasion of the territory, but

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Three-Year Plan Aid in Boosting Pontiac Sales

When H. J. Klingler came to Pontiac Motor Co in October, 1933, as president and general manager the company might well have set down as an asset opposite his name—"Best equipped sales executive in the industry."

Klingler headed up the New Deal for Pontiac. It is a new deal with a plan. It may be a three-year plan or a five-year plan, but it is a definite plan.

He surrounded himself with one of the most competent groups of sales executives in the industry. No cloistered school teachers or brain trusters are on that staff. They are all practical men, men who for the most part have been dealers or sold cars at wholesale and retail.

First in command under the chief is A. W. L. Gilpin, vice-president and general sales manager. D. U. Bathrick, assistant general sales manager in charge of the east; C. P. Simpson, assistant general sales manager in charge of the west; F. A. Berend, advertising manager; F. H. Fenn, sales promotion and group selling manager; L. K. Marshall, service manager; and O. A. Lamoreux, parts and accessories manager, complete the first line staff.

Teamwork Perfect

To observe this group in action reminds one of a smooth clicking championship football team, so perfect is the teamwork and the understanding of tactics. They never forget their signals.

Their goal is the establishment of the industry's finest dealer organization and the formations, plays and general style are built around a line of cars that the public calls "The most beautiful thing on wheels"; a broad gauge sales policy; smartly directed and executed advertising; generous sales promotion plans; intelligent handling of service and a parts and accessories program that rings the cash register.

All of these executives maintain constant and intimate contact with the dealer body. Regional, zone and district managers bring new dealers into the Pontiac fold, but this central office group from Klingler on down are the head builder-uppers.

They travel incessantly. Hundreds of thousands of miles a year in the aggregate. They bring dealers to the factory, not to be put on the carpet, but for an interchange of ideas and mutual counsel. Elsewhere in this edition of Automotive Daily News the activities of the various departments are described in detail.

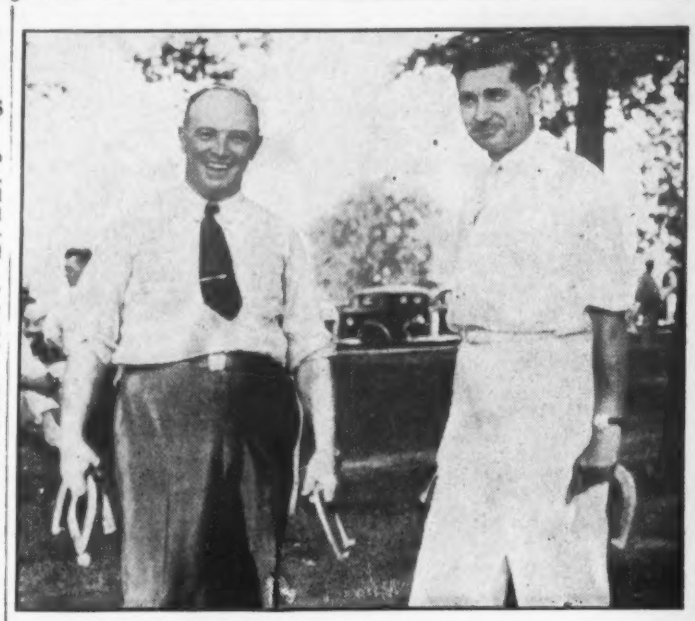
Gilpin Gives Aim

Gilpin, the active sales head of the company, who is steeped in the "goodwill to dealers" doctrine, has given to the readers of this paper the aims and ambitions of the Pontiac management as contained in its platform of operation.

Coming as it does just after the close of a year during which Pontiac doubled its sales over the preceding year, it is especially for Gilpin to outline the thinking which is guiding the sales department.

"When the present management assumed control of the Pontiac Motor Co. over two years ago," said he, "they found among its most valuable assets a select group of dealers, who believed in the car, and in General Motors, and who determined to sit tight in the expectation of a return of the same kind of profit years they had enjoyed prior to the ebb of the business tide.

"These dealers are having their expectations fulfilled, as are the hundreds of new dealers that have been added in the last two years. Our dealer organization is rapidly approaching the point where its strength and numbers



ALL WORK AND NO PLAY . . . You know the rest of the saying. But Harry Klingler and "Doc" Gilpin play like they work. Here they are pitching horseshoes at a dealers' picnic at a nearby country club last summer.

will surpass any previous period in the history of the company. Our wide range of models and prices has enabled us to establish many strong exclusive dealerships.

"Our long-range problem was to set up a program which would utilize the full productive capacity of the plant at the earliest possible date. That, of course, meant greater volume.

Three-Year Plan

"To achieve that volume the new management laid out what has been called—more dramatically, perhaps, than accurately—'The Pontiac Three-Year Plan.'

"That plan has as its ultimate objective the establishment of Pontiac as the leading volume car in the price range just above the lowest. This seems to me a reasonable objective, for the car fared remarkably well in the hands of previous managements; and, on the foundation of their sound planning, faces a future of exceptional promise.

"Along with our inheritance is Pontiac's established reputation for durability, performance and economy. We decided to make the most of this trinity of merchandising virtues in our first year campaign which—aside from laying the groundwork for the 'Three-Year Program'—was mostly a problem in selling.

"At that time the majority of dealers held a dual franchise. To ease their minds we promised them two things: First, that the car would continue to be the best we could turn out, and at a price to make it attractive competitively; and, second, that every dual Pontiac dealer who got an honest share of Pontiac price class business would not be disturbed. Those promises have been kept. They are a part of the long-range plan, and they will continue to be kept.

Needed Retail Outlets

"With the establishment of an exclusive Pontiac wholesale organization more than a year ago we felt we had then been given the necessary shock troops to fight the battle of the three-year campaign.

"To make that campaign successful, however, larger retail outlets were necessary. And to strengthen our representation required some outstanding inducement to attract new or bigger dealers to the Pontiac franchise.

"The obvious way out was to expand our new car potential, as well as try to build an automobile so outstanding as to attract a large public following, which would automatically interest desirable new dealers.

"We expanded the potential with the introduction of the master six and the de luxe six in 1935 as companion cars to the established straight eight. This gives us three lines of cars covering a price range of from $615 to $895 and, by dipping into the lower brackets, opens up markets formerly closed because of price. The potential of our established dealers has been increased, and the lower priced cars offer profit possibilities in towns smaller than those where we heretofore had representation.

"Although our base price comes close to the lowest in the industry, we have never contemplated presenting the car on the primary appeal of price, but rather on the basis of style and quality. There are enough people in the United States who want something better than the lowest priced car to keep that magnificent new plant at work.

"As times get better, the next-to-lowest price market gets better. It is getting better now, as 1935 so clearly demonstrated. The vanity in all of us, the urge to own something more than the least we may have, is as old as human nature.

Rebound Sets In

"During the past few years buyers flocked to the lowest price field. Some did it through economic necessity. Others made a virtue of the slogan, 'It's smart to be thrifty.' Still others for social reasons, such as the effect on their unemployed neighbors, thought it best to put up a pretense of extremely economical living. But all of them retained that inborn urge for a better car than they were driving.

"The whims of the public are notoriously short, and the rebound has set in. Recovery is translating that desire to have a better car into the actual buying of it. The Pontiac price class will improve in direct proportion to improvement in the individual's capacity to earn. The automobile market is going part way back up the price scale just as surely and almost as quickly as it went down.

"So much for the wider market spread through which, by the addition of the sixes, we hope to make our franchise more desirable.

Outstanding New Models

"The second phase of our product campaign, as mentioned, was to build new models as outstanding in every respect as possible, so as to attract a favorable public reaction, and in that manner interest dealers.

"We were fortunate in that Pontiac already enjoyed a reputation—remarkably well established for a car only nine years old—for durability, performance

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Long Study Preceded Pontiac's Introduction

Popular Price Car Weighed Carefully by GM Officials

By E. M. LUBECK

Celebrating its tenth anniversary, the Pontiac car is an automobile that belongs to the present generation. Unlike many other automobiles on the market, Pontiac has no romance of a humble beginning in some obscure blacksmith shop, none of the glamor of struggles for public acceptance. True, there is romance aplenty in the name Pontiac. It conjures up Indians, hazy and smoky autumn fields with dancing red men, and Chief Pontiac himself, the friend of the white man, and the lighted calumet.

E. M. Lubeck

Instead, Pontiac, notwithstanding that its projection into a popular-priced field was a coolly calculated business proposition in spite of being predestined to occupy, even long before the first car rolled off the assembly line, a niche of its own in the list of American cars, is a car that was born with a silver spoon in its month. It was blessed with a heritage that few cars ever had, for it was the first child, so to speak, of the General Motors Corp., a child for whose future, planning, engineering study and an open market made its success possible. Pontiac was born from a business standpoint.

Calmly Worked Out

It was not a dream of some experimenting mechanic, in the true sense of the word. It was a calm and methodically worked out idea of Alfred P. Sloan jr., president of General Motors, an idea that was to be of benefit to the corporation, a benefit to the dealers throughout the country and a car that was to meet the public demand for an automobile in a certain price field that was to fill the wants of the owner in performance, long life, appearance and those elements that go for pride of ownership.

Those who had a hand in creating Pontiac deliberately planned its future and foresaw its possibilities. From the day that A. P. Sloan was voted a member of the board of directors of the corporation in 1917 until his election to the presidency of GM in 1923, he had visions of a new car to be fostered by the corporation, a car to fill a definite niche in the corporation's line-up.

During his term on the board, Sloan had regimented the cars and other units of the big organization, putting them on a sound manufacturing and sales basis. He saw there was room for another car in the GM group. His careful study of the situation revealed to him the hole in the line-up of cars in the GM price bracket. His idea crystalized more definitely after he became president of the corporation, when he surveyed the GM purchasing power for materials, for manufacturing and the rapidly growing market that could easily be reached.

Six Fit Field

Sloan visualized a car that would fit into the line somewhere between the lower priced Chevrolet and the price position held by Oldsmobile and Oakland, both of them in the over-$1,100 class. Somewhere down the line between these groups another car could be fitted in, for already there had dawned the idea for the corporation of a "car for every purse and every purpose." Its price depended upon what the car would be. Investigations, checking sales records and studies finally led to Sloan's statement that it would be "six," for a "six," provided it could be priced right, would fit into the competitive field better than any other and a "six" would not interfere with the plan that Chevrolet, with increasing production and lowering prices, was to dominate the four-cylinder field which already had begun to be a battleground for sales honors.

It took time for the idea to develop. GM, in its characteristic carefulness of "let's let it lay on the table until we see what can be done," didn't rush the program. Sloan, pressing for action, put the plan up to the Chevrolet engineers, ordering engineering investigation," "cost studies," and a chassis layout. Blue prints began stacking up. Cost figures, in the minutest details, were submitted and in due course of time the new car, as yet nameless but apparently ready for a sample production, was offered to A. B. C. Hardy, then president of the Olds Motor Works, to try his hand at putting it into being.

Engineers Summoned

Hardy summoned his engineers to check the blue prints. The cost department men checked the figures already submitted and the production department studied the layout needed to put the car on the assembly line. A few weeks went by. Then one day Hardy hied himself to New York with a portfolio full of data. His report, when he appeared at the GM offices, amounted practically to "no dice," for estimates disclosed that the car could not be produced to fit in the price picture drawn by Sloan. It couldn't be done, according to Hardy.

For a time it looked as if that valuable sales field, the over-$600 and below-$1,000, would lack GM representation, but Sloan had another idea. He turned to George Hannum, then president of Oakland. Hannum kept the unborn child for a while and he, too, took the train for New York with figures which his staff had prepared and reported "estimates too high." And Hannum took the train home that night.

So back to Chevrolet the now travel-stained blue prints were sent. Here again the to-be-born infant lingered while engineers, cost men and production experts pored over the facts and figures. Engineers worked their slide rules. Data figures and reports were checked and once more the report came back to headquarters, "estimates too high."

For a while the "six" was pigeon-holed. It looked like "no go." No one seemed to be able to get costs down. No one could see any possibility of putting the finished car on the market in the price bracket Sloan had visualized. Instead of the "dream" becoming a reality, nearly two years' constant checking of costs here and there seemed to make the "six" a nightmare instead of a car.

Meanwhile, changes were taking place in the GM car unit setups. Early in 1925 Oakland had a change of personnel. A. R. Glancy, of the du Ponts, was placed in charge with certain instructions as how to handle the situation. He had heard about the proposed "six" and decided that as soon as he could revamp Oakland's engineering and study out his sales department needs, he would take over the new car job for there seemed to be a possibility that Oakland dealers could use a lower priced car to round out their lines. If the new car could be produced at the right price, it might rejuvenate Oakland.

Glancy Convinced

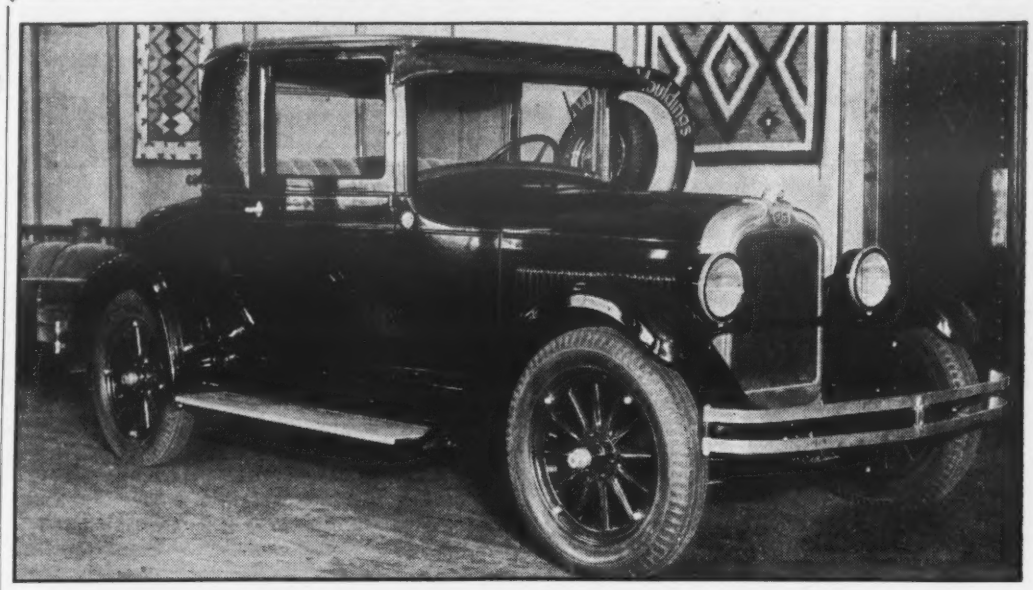
Glancy became convinced he could make the "six" and went on record as deliberately asking for the job. Sloan, brightened by the thought of action, shipped on the almost worn-out prints and figures. They arrived at about the time Glancy had recruited his staff of engineers and production men. Heading the list was Ben Anibal, a veteran of GM, a former Cadillac engineer. Next in line was Herman Schwarze, whose specialty was the electrical end of internal combustion motors and who shares with C. F. Kettering the honors for having developed the electric starter. They were joined by Roy Milner and Fenn Holden, body and chassis engineers. They went into a huddle and assisted by Art Brandt, production manager, they began their studies.

The first problem was a motor —a motor with long life—a motor with power and yet economy. The chassis seemed to be okeh. It had sturdiness and some new ideas. The transmission, rear and front axles so carefully checked by the previous proposed foster fathers, were pushed aside with a definite okeh. Then Anibal tackled the motor. Several of various types were built and tested on the proving grounds not so far away and with more thousands of miles on them in a few weeks, than the average owner puts on his car in more than a year, one by one the test motors were discarded in favor of one, the one which actually made the Pontiac reputation.

It was a new motor, new in every particular to the then existing traditions in the motor engineering industry, yet old from an engineering standpoint, for it contained the basic ideas of motors of the early days of the automobile industry. It is these same basic internal combustion engine ideas that for 10 years have enabled the Pontiac automobile to demonstrate in every section of the world Pontiac stamina, economy and long life. Pontiac's engines have written history in the motor car business.

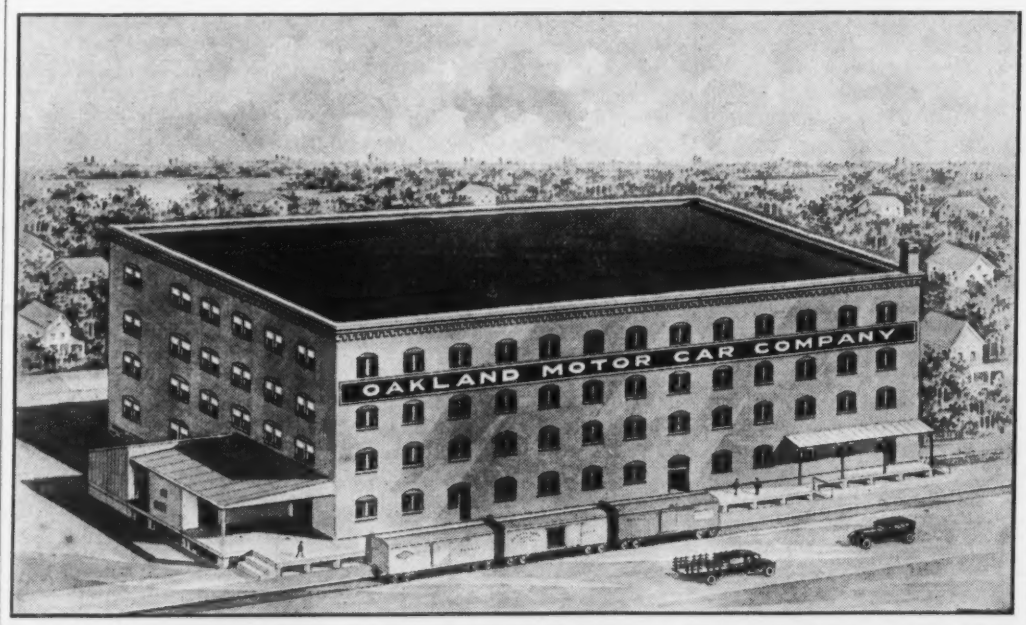
Anibal's engine was almost square in its bore and stroke. Engineers who had gone to the long stroke and small bore engines derided the Anibal engine. Anibal is still on the job at Pontiac. But before his pet idea of short stroke and big bore and low rpm was given the final okeh, Henry Crane bobbed up. Crane was the former Crane-Simplax manufacturer. He came into the picture because he had just been appointed to the personal engineering staff of President Sloan. He was a short stroke and big bore advocate because such motor proportions to him meant shorter reciprocating parts, sturdier crankshafts, more valve and valve-cooling room, making for a simpler motor to

(Continued on Page 14, Col. 1)



NUMBER ONE PONTIAC still is on deck and in fine running order at the proving grounds at Milford, Mich. It listed for as much money as the highest priced Pontiac eight of today. And it was a six.

CHRISTENING the 1926 Pontiac "Chief of the Sixes" was the occasion of a civic celebration in Pontiac. The ceremony was done in the grand manner of one of those greyhound of the ocean affairs.



THE FIRST Oakland Motor Car Co. factory of 30 years ago. The space was set aside so that automobiles could be made as a side line to the carriage and wagon business.

Pontiac Field Service Men Aid Dealer and Owner

Co-operation is Keynote Of Home Office Officials

A new Pontiac dealer in Texas is off to a big year with a flying start, according to L. K. Marshall, general service manager of Pontiac. Last week, when a Pontiac executive dropped in to see how things were going, the new dealer greeted him enthusiastically, Marshall said.

"Going fine," reported the dealer. "But, tell me something. Do you treat all of your dealers the way you have treated me? Why, no sooner had I signed up with Pontiac than your whole zone office seemed to move right in here, straightened out a lot of difficulties for me, improved my layout, put my men through a course of training, gave me an entirely new picture of what I could do with the service end of my business. I have been selling cars for a long time, but I did not realize what a lone wolf I had been all these years. Thanks to your zone office, things are going fine and besides selling a lot of new Pontiacs, I am going to earn enough gross profits on my service business alone to pay better than 75 per cent of the fixed operating expenses of my entire operation."

Includes 150 Men

"Other dealers, new and old, know that the co-operation extended to this new dealer in Texas by the field organization is the rule rather than the exception," Marshall said. "Because he was a new dealer, attention might have been more or less concentrated on him for a few weeks by the zone office, but the same kind of co-operation is offered to all Pontiac dealers throughout the year. The intimate nature of this contact is shown by the fact that our central office and zone service personnel includes more than 150 experienced service men.

"Each zone office, for instance, maintains its own service manager and its own service representatives, whose entire time is devoted to field service work, except when they are at the factory getting instructions on new servicing procedure, the use of new equipment or other phases of service work. For instance, before a new model is announced, all field service men spend at least a week at the factory, where they attend a factory school that covers the servicing of the new models from A to Z.

"Thoroughly trained in how to service new cars, these men return to the field and conduct similar schools in key points throughout their territories for all dealers and dealer mechanics. In this way, before new models are ready for distribution, our national service organization is thoroughly acquainted with the changes in the car and the best methods of servicing the new product.

"Schools also are held at various times throughout the year and are supplemented by a complete shop manual and frequent issues of the Pontiac service department dealer bulletins, which keep them posted on the latest developments in maintenance, adjustments and repairs.

Work Successful

"Training mechanics is but a minor activity of the central office and zone service personnel. The major effort of these men is devoted to helping Pontiac dealers build up and handle at a profit the largest possible service volume. So successfully has this work been carried on that now there are many dealers who have doubled and trebled their service business during the past two years. Not only has this meant increased profits for the dealers, but also it has meant increased sales of new cars, because of better and more efficient service.

"Service men operating out of our zone offices are of high caliber. They are prepared to counsel with dealers in matters of location and leases, and are qualified to interpret financial statements and thereby discover whether or not the dealer is making the profit he should, and if not, find out why. Often their suggestions for improvements in showroom and shop layout, for re-locating equipment, for ways of systematizing methods, for handling customers, for solving problems of personnel, have taken a dealer out of the red and put him in the black.

"More and more our field men are encouraging dealers to broaden the scope of their service and go after a bigger share of the dollar which the owner spends to keep his car operating. No longer should a Pontiac dealer be satisfied to sell only parts and labor. For real profits he must include the sale of gasoline, accessories, tires and oil.

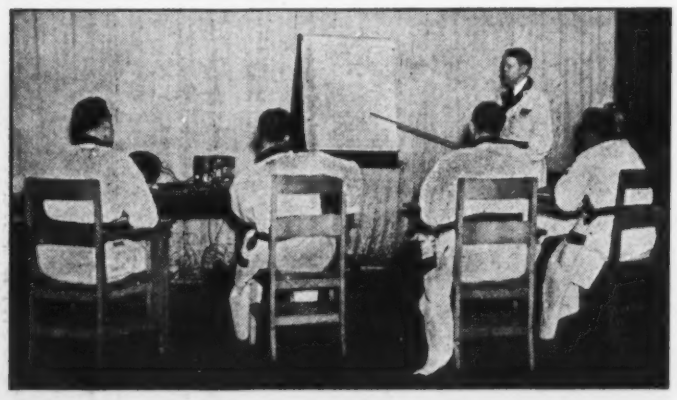
Added Profits

"Particular emphasis is now being put on the possibilities of specialized lubrication, not only as a source of added profits for the dealer, but more especially as an opportunity for more frequent and regular contacts with owners. Through these contacts, properly handled, the dealer has a chance to sample his service and to attract owners back for additional service, which, again properly handled, leads to the increased sale of new Pontiac cars.

"So important has the development of the service business become to the Pontiac organization that this year we have gone to greater lengths than ever before in providing dealers with effective promotion literature. Based on the results of the past three years, the Pontiac Owner Magazine, devoted almost entirely to promoting the sale of service, has been doubled in size and greatly improved in appearance and editorial content. Regular issues are planned to sell the idea of correct maintenance to all owners and other dealer customers and prospects. In addition, there are three special issues prepared exclusively for the new owner. Written in a friendly, intimate way, these special issues take the owner behind the scenes, sell him on the advantages of Pontiac authorized service, and urge him not to forget the 500-mile and 1,500-mile inspections and adjustments to which he is entitled as a new owner.

"And so it can be seen that we are not overlooking a single thing that might help the dealer to expand his service business. In doing these things, we are enabling dealers to render expert, efficient service at a profit and at the same time safeguarding the interests of Pontiac owners."

LEARNING TRADE TRICKS are these field men from Pontiac, who each year are brought to the factory and put through an extensive course in service operations. There is no theoretical fumadiddling, every service job is done completely using the actual parts of the car rather than drawings and illustrations. These men then go back into the field where they help dealers to instruct their mechanics and service managers with the result that service work is done efficiently, quickly and thoroughly throughout the organization.



LECTURES FORM A BIG part of the service training for zone men, in addition to the practical work done on the chassis. At these lectures the latest theories on design and construction of automobiles are expounded.

Radiator Exclusive

The patented cross-flow plan of radiator cooling in which core channels run horizontally instead of vertically as in convention construction, is exclusive with Pontiac again in 1936, for the sixth consecutive year. With this type of radiator water evaporation is reduced to a minimum, consequently anti-freeze solution lasts much longer; the radiator tank being located at the side instead of the top of the radiator requires much less frequent attention and minimizes the possibility of running short of water, and, it is claimed, this method of cooling reduces rust and corrosion in the channels of the cooling system.

Brown Popular

Brown automobile finish is more popular on the Pacific Coast than elsewhere in the country, an analysis of Pontiac sales shows; while maroon, so popular in the east, is seldom specified in the south or west.

Says Proper Ventilation Would End Gas Accidents

Accidents in which carbon monoxide plays a part could be eliminated if all motor vehicles were equipped with adequate ventilating systems, according to William A. Fisher, president of the Fisher Body division, General Motors Corp.

Knowledge of this fact forms one of the chief reasons why the solid steel "turret top" bodies by Fisher produced for the Pontiac line of sixes and eights and the other General Motors cars are equipped with the exclusive Fisher no-draft ventilating system.

As efficient in wet weather as in dry, it is recognized generally as one of the greatest contributions to both motoring health and comfort that has ever been devised. It solves ventilation problems that have always been a source of annoyance to motorists, utilizing wind currents generated by the forward movement of the car to accomplish this end.

Exhaustive tests made under the most trying conditions are said to prove that the Fisher-pioneered system eliminates drafts, prevents clouding inside of the windows and windshield, circulates fresh air in the interior, cools the car in hot weather, and removes smoke and stale air.

One of the advantages the system has over certain other types is that the angle of attack of the sturdily-pivoted, smooth-working ventipanes may be adjusted to compensate for varying weather conditions simply by turning the control provided for each. This also makes it possible for the driver and his passengers to govern the amount of air that is admitted to suit their individual tastes.

Old-Timers Remain

More than 300 men who helped to build the first Pontiac car in 1926 are still on the company payroll and worked on the 1,000,000th Pontiac built last summer.

HERE'S ANOTHER VIEW of a group of zone service managers taking a car apart to see what makes the wheels go 'round and also what causes them to refuse to go. Every question regarding the service and maintenance of the Pontiac car is answered before the course is ended.

Dealer Opinion Helps Pontiac Plan Advertising

Discussions Every Month Reveal Prospect Reaction

That the dealer should have a voice in his own advertising—and that his opinions frequently are of value to advertising experts in typing copy themes to prospect thinking of the moment—is an established belief at Pontiac, acted upon consistently by the management.

Every month a hand-picked group of from 12 to 20 dealers from every part of the country spend one day in conference with central office and advertising agency men on projected plans for the coming quarter.

Whole campaigns have been revised as a result of such conferences, when majority opinion of the dealers indicated a more practical exposition of a given theme than the method originally evolved.

New Departure

The importance in which these conferences are regarded by the management is indicated by the consistency with which they have been held.

They are comparatively new in the industry, and were started by the group of men now responsible for Pontiac advertising when those men held comparable positions with another company.

To date, about 10 per cent of the entire dealer body have attended one of the sessions.

No one dealer has yet been invited to more than one conference, the object being to get as many different viewpoints from as many different sections of the country as possible.

The "hand-picking" of the invitational group is done to get a representative gathering from each of the five regions. Regional managers submit a list of the dealers they think most eligible, and from these recommendations the selections are made and invitational letters sent out.

There will be present at a representative conference one of the largest dealers handling the franchise. Another will be one of the smallest. One will be comparatively new to the organization, and another an old-timer. One from a metropolitan center and another from a small community. The agricultural section will be represented, as well as the industrial.

Mental Cross-section

The composite mind at the conference table will represent a cross-section of national dealer thinking. It will know that you can't impress the cotton planter by advertising the anti-freeze saving of a cross-flow radiator, but that the same thing is a big sales argument with the Montana rancher. It will know that the Colorado miner is much interested in the silver bearing, but that the Pittsburgher would rather hear about the hill climbing ability of the car.

Opinions Sought

At these conferences, the leaders of the discussion literally stick their necks out. F. A. Berend, advertising manager, opens the session with an explanation of current activities of his department. He calls for criticisms of present and past campaigns. He wants to know what the dealers think of, and how effective is, the central theme of the advertising of competitors. He asks who wants a radio program, or prefers spot broadcasts, or nothing at all on the air. He asks whether the last direct mail campaign brought in expected volume.

Dealers will want to know about the co-operative advertising fund—just where their money goes, since a definite amount is set aside for local advertising for each new car sold. They may object to money spent in Fortune magazine because it has no circulation in their small community

WAP JOHN now pitching . . . **The Agency executive throws the high, hard one while presenting advertising plans at a dealer conference.**

—until they learn that not a cent of their money is charged against anything except the newspaper copy and outdoor boards used in their own home towns over their own signatures. In this respect, the discussion is educational for the dealer, too. In many instances the latter has no idea how his own money, plus the factory's contribution to it, is used. He learns that it is confined purely to local expenditures.

THE JURY ON ADVERTISING. A dozen to 15 dealers from all sections of the country attend monthly advertising councils. Ideas are exchanged for a better understanding of all advertising problems.

A PREVIEW OF PONTIAC advertising. Part of one of the monthly dealer groups invited to the factory get the thinking back of the current campaigns and offer their own reactions for the good of future advertising.

He also learns that, in some media where the dealer thinks his money is being used to ill advantage, it is not his money at all, or any part of it, but a special factory or General Motors appropriation aimed at national coverage. It is to the credit of these conferences that no dealer who ever attended one of them, and got the full picture, ever thought advertising money to which he had contributed was being used except to good advantage.

When Berend finishes with the general discussion of the over-all picture, he is followed by W. A. P. John, principal in the agency of MacManus, John & Adams, Inc., national advertisers, who handle the creative work for Pontiac. With one exception, John has written more automotive advertising than any other man. The exception is T. F. MacManus, president of the agency of which John is partner. The first Pontiac advertising copy ever written—written even before the car had a name—was the work of John, while he was copy chief for the Campbell-Ewald Co., then handling Pontiac advertising. John, in either an active or supervisory capacity, has had a continuous part in the direction of Pontiac advertising since before the car was announced.

Advertising Analyzed

Along the standard pattern followed at all of these conferences, John goes into a detailed and illustrated exposition of Pontiac advertising. He explains the thinking behind each advertisement, exhibits typical copy themes and art work, much of it in incompleted form because he wants to get the reaction of dealers to a given projected advertisement before it gets into the final stages of preparation. Much of the preparatory work he passes around the conference table for inspection is not scheduled for publication until two or three months hence. As a result, whatever recommendations a majority of dealers agree upon may be incorporated in the finished product.

Specific Suggestions

Out of these informal discussions come specific recommendations from dealers. They hear from their contacts with prospective purchasers that the silver grille warrants greater emphasis. Or that the convenient jack pads, which no other car has, is a potent winter sales factor. Or that knees and the sealed chassis cause showroom comment. Or that wide doors, or the extraordinary economy of a car made purposely heavier than others in its class might be stressed to advantage. Dozens of ideas come up for general discussion, and when a majority of dealers agree upon some one thing as right, that thing is pretty likely to come in for unusual emphasis in subsequent advertisements.

As an example of the results obtained, a year ago when the first Pontiac with the silver grille came on the market, the central office minds were not sure that "Silver Streak" was the proper name for it. Early in 1935, this particular designation was not featured, because there was still some doubt as to the popular appeal of this name. But the dealers soon knew, and knew from their customers.

Developed Overnight

The result was that a striking campaign on the "Silver Streak" came into being practically over night.

Similar instances might be cited of changes in projected campaigns, made as a result of dealer advice.

In fact, every single conference yet held developed some leading recommendation whereby Pontiac advertising might be made more to the point, more timely, and, therefore more effective.

Late in 1935, after practically all advertising for the year's model run had been prepared and released, another dealer conference was held. But, instead of reviewing projected programs, this one took the form of a resume of all advertising prepared during the year. In the conference room were more than 200 individual advertisements prepared for Pontiac during the selling season. Each campaign, and many individual advertisements, were discussed, and dealer comments solicited to determine how they might have been made more effective, and what could be done with similar future campaigns to improve their sales worthiness.

This sort of thing goes on throughout the morning. Every discussion is strictly informal and interruptions are constantly being made whenever some point open to argument comes up.

After a lunch the dealer-guests are taken for a plant inspection, followed by another round-table session with ranking factory executives. Sales Manager Gilpin always meets with the visitors there and generally President Klingler is also present in a general exchange of views on policy, and any matter which may warrant open discussion.

Later, dealers and the factory group return to Detroit for an evening banquet at the Book-Cadillac Hotel for an open, frank and free expression on any subject of common interest or mutual concern.

Groups Held Small

Groups at each meeting are kept purposely small so that every phase of the day's program may be on a most informal basis. The morning sessions are moved on such a basis as early as possible so that dealers, frequently not knowing quite what to expect, may soon realize that frank and honest opinions are not only in order, but very much desired.

With advertising so big a part of sales, it is logical to bring all the intelligence possible to bear upon the proper presentation of the product. Further than that, the Pontiac management believes that the dealers, the men who have blue chips in the game, should also have a voice in the rules of the game itself.

Pontiac Makes Several Central Office Changes

Three appointments in the central office personnel of Pontiac Motor Co. have been announced.

F. H. Fenn

W. I. Gibson

F. H. Fenn has been named manager of sales promotion and group selling; W. I. Gibson, assistant to the general sales manager and E. R. Pettingill, car distributor.

E. R. Pettingill

Fenn's principal aides will be H. T. Worden, assistant manager of group selling and Miles Lilly, assistant sales promotion manager.

Fenn came to Pontiac as manager of the Detroit retail branch.

J. S. Evenson, former sales promotion manager, has been appointed assistant zone manager at Kansas City, and G. D. Sills, former assistant sales promotion manager, has been transferred to the Atlanta zone.

PONTIAC SALES MANAGER Kenney, of Faunce Motor Co., Pittsburgh (left), and Russell O'Hara, of Russell Motor Car Co., Scranton, Pa., take active part in a dealer advertising meeting at the factory.

Klingler Knows His Men and Has Faith in Them

Takes Job Seriously, But Never Takes Self That Way

H. J. KLINGLER, a builder of men, who inspires their loyalty, and a maker of good radio speeches.

Whether or not we like it the New Deal is with us, and with it have come new dealers and new players in the game of business and industry. The old army game of deal and draw has gone. There is a new and fast moving "table stakes" game in progress, played with blue chips . . . the blue chips that represent the resources of industry, business, finance, commerce and the very like of society itself.

New leadership and prestige have sprung forth . . . the leadership and prestige of the still youthful motor car business . . . dynamic, courageous, alert, tugging and pulling with caged restlessness all through the years of depression . . . breaking loose at the very start of the New Deal to astound a stunned nation by its powers of recovery . . . bounding along through 1934 and 1935 at an ever increasing speed . . . the recovery of youth.

Wizards of motordom . . . names that are known the country over . . . direct the strategy of the big push. But at the throttles, on the bridges and in the pilot houses are a group of younger men, not so well known yesterday, but becoming better known day by day.

They are piloting the motor juggernaut onward and upward with the fire of youth and the rush that has caught all business in the suction of its wake until today we again are entering the portals of a bigger and better business era. Independent in thought and action, these men have pushed the young giant on through opposition to new positions in the galaxy of industrial stars in the national firmament. It is like the charging line of an inspired football team.

Takes Job Seriously

Harry J. Klingler is one of this new group. He followed his interference, cut back through the line, shook off tacklers and now is in the clear with the goal line in sight.

He is a "brass hat" who takes his job seriously, but never takes himself that way. The youngest of this recent group of youngsters to head a big motor car company . . . president of Pontiac. . . . In his second year, which just ended, the company doubled its 1934 sales. Klingler deals with men, not things. When men are right, things are right. His greatest success has been with men.

Invariably, men like him . . . follow him . . . have faith in him, because he has faith in them first. He knows a lot about men . . . shoots straight from the shoulder. . . . Can get men to do almost anything he wants. That kind of a man is a natural leader. That's one reason why, as general sales manager of Chevrolet from 1929 until the fall of 1933, he was able to lead 35,000 dealers and salesmen and for three years give his company first place in the industry.

Harry Klingler is one man of action who never is hurried. He conserves his energy. Even to the sort of half-drawl of his liquid voice he is like the famous "Hurry-Up" Fielding H. Yost of University of Michigan football fame. Yost's oft-repeated "hurry-up" and his curtain lectures between halves, spoken in soft Tennessee accent rolled up a long period of high scoring for his "Meechegan" teams that never has been equalled. Klingler works that way, and it may be that the Yost example has had its effect on him. He is a U. of M. man, a rabid football fan and a director of the Detroit Lions championship professional football team. Those rugged ex-collegians call him "Harry" to his face and he likes it.

Works Easily

No man can consume more work with less visible effort than Klingler . . . and with no confusion of mind. He works without burning himself up and out. Adroitness is a finesse with him. One of his favorite methods of operating is to oppose vigorously the things he likes best . . . just to see how well men will fight for the ideas they are trying to sell him. That is one of his unsuspecting ways of telling whether a man knows what he is talking about.

Plenty of big shots say they do not want "yes" men around them. Most of them don't mean it. But here is one who means what he says. He isn't particularly keen about being opposed, cross-examined or put on the gridiron before a large group, but he'll welcome the individuals if they will come to him one at a time and have it out.

His intimates will tell you that anyone knows where he stands with Harry Klingler at all times . . . that his word can be relied on implicity. He'll go to bat for men under him and defend them to the last ditch if they have stubbed their toes honestly, but he'll go to them afterward to find out why on earth they made such a mistake. If a man tries and errs in judgment, that's okeh, but he has no use for dumbness or stupidity.

Dislikes Gossips

"My shoulders are broad" is one of his favorite bromides, and he has the courage to "take it" for this one or that one time after time. He is very careful whom he trusts with a business confidence. "If more than two people know a thing," he said, "it is no longer a confidence." One of his particular dislikes is for the gossip whom he describes as a person who "starts his tongue wagging, goes away and leaves it and then comes back to see if it is still going."

This youthful head of Pontiac has a grand radio personality . . . believes that faith on the part of every member of a business organization is just as essential as it is in the religion of a confirmed churchman. He is for the open door between all department heads . . . no inter-organization jealousies go . . . calls himself the general manager and assistant advertising manager . . . says there isn't a great deal of difference between being a general sales manager and a president . . . both are matters of judgment where experts in every branch of the business must be relied on for the technical opinions upon which to form the judgments . . . maintains that "if you're wrong you better keep still, and if you are right you won't have to say anything."

He is made to order for a newspaper reporter. Often tells them "state" secrets, but somehow, instinctively, they never betray his confidence. Both get a good break. The reporter gets a swell story, and Pontiac, through Klingler, a lot of good publicity. His uncanny publicity sense tells him when he has had enough. So he calls a halt. "No more pictures of me or statements for a while."

Built Like Athlete

Tall, rangy, athletically built, with the physique of a college boy, showing no effects of the strain of the past five years, this business leader's diversions and hobbies run to fishing, hunting, sailing and home . . . and all pursued in the same unhurried and untiring manner.

One year on a fishing trip in northern Wisconsin, so one of his companions say, he fished from dawn 'till dark for three days . . . more muskies followed his plug without a strike than any of the crowd ever had seen. Yet he was out at dawn again on the fourth and last day with no better luck than before. His fishing has run from deep sea to brook trout.

In the summer of 1934 he took his vacation as skipper of one of the finest sail boats on the Great Lakes . . . a 60-footer. Coming down Lake Huron they hit one of those famous squalls that blow out of Saginaw Bay and are a nightmare to every lake captain. With the rest of his party flat on their backs, Klingler stayed on his feet for 36 hours and manned the helm while she rode out the storm.

Where he was born and brought up at St. Clair, Mich., the first thing they teach a boy is to fish, swim, hunt and sail a boat. And Harry Klingler is inveterate at them all. Bucks are his shooting specialty. He subscribes to almost every hunting and fishing magazine, and on business trips when others pick up magazines at a railroad newsstand, he loads up with the latest sports publications.

Drives Fast Speedboat

He drives one of the fastest speed boats on the Detroit River, and is a member of the Detroit Boat Club. Golf and horses are not in his line. . . . A careful liver, he works in his garden, which, with his wife and children, are his main hobbies, and doesn't go in for clubs or society.

It was on July 5, 1889, that Harry J. Klingler became a vital statistic in that small town on the banks of the St. Clair River. After high school he entered the Lit-Law class of 1912 at the University of Michigan . . . left college to take a job with the old Chalmers Motor Car Co. . . . changed to a chair company of which he became sales manager . . . volunteered when the United States entered the War . . . had a year's service on the other side as a first lieutenant with an anti-aircraft machine gun battalion.

For five years after the War he was with Delco-Light in Dayton . . . joined Chevrolet . . . was manager of its St. Louis zone in the days when a car now out of existence outsold Chevrolet . . . within three years he was general sales manager. That was 1929 . . . two years later vice-president in charge of sales. During five years of depression he raised the company to first place in the motor car industry with the largest selling organization. . . . That's how he left Chevrolet to become president of Pontiac.

Klingler has gotten things done at Pontiac in his unhurried way. He inherited the 1934 car . . . the 1935 "Silver Streak" model was his first baby. And it outstripped its foster brother 100 per cent. The first three months of the 1936 product have broken all records for the last quarter of a year also.

Gives Loyalty First

When he took command in October, 1933, it required six months to get acquainted. He made a few personnel changes . . . got some green people in rather important jobs. Gave them guidance, but in return he got faith and loyalty. Mistakes in judgment can be headed off, and new blood means fresh energy. Klingler gives his loyalty first . . . doesn't ask for it from others first. It's the Golden Rule without preaching about it . . . that's the Klingler doctrine and the Klingler strength in dealing with men.

First contacts with a large manufacturing organization of his own in 1934, with thousands of production workmen passing his windows every day, gave him much concern. He would sit in his office, watch the second shift of men pour by in the afternoon and with an intent, sympathetic expression coming over his face would say, "You see those men—well, they're just like you and me . . . have homes or want them . . . children . . . gardens . . . a car of their own . . . mostly fine fellows who want work the year 'round . . . they are not looking for any trouble." In 1935 they came closer to working the year around than ever before.

And with that belief in a generous use of the milk of human

(*Continued on Page* 44, *Col.* 4)

ALL THE KLINGLERS are baseball fans. Shown here as they watched a World Series game in Detroit are H. J. Klingler, president of Pontiac, and his son. Notice the tense expression of father and son. It must have been a home run.

DINNER'S OVER for these Pontiac officials shown at a Chicago Auto Show Sales banquet. At the left is D. U. Bathrick, assistant general sales manager in charge of the east; H. J. Klingler, president; N. J. Mougey, Chicago zone manager, and A. W. L. Gilpin, vice-president and general sales manager.

OUT IN FRISCO the Shrine Hospital was presented with a silken banner on behalf of Pontiac. Shown in the photo are (left) L. P. Steurt, Imperial Potentate of the Shrine; J. D. McGilvray, chairman of the board of directors of the Shrine Hospital and William M. Coffman, Potentate of Islam Temple in Frisco. H. J. Klingler, Pontiac president, promised the banner at the Washington, D. C., Shrine Conclave.

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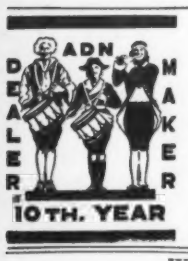


One sacred pledge we make our friends here and now. This publication, God willing and so long as it is in our charge, will never champion the cause of any individual or any corporation which is not for the best interests of the automotive industry as a whole. Nor will its columns be used to spread gossip or inflame prejudice. It will confine itself to the upbuilding of the industry it is pledged to serve, wholly through the dissemination of NEWS which is timely, authentic and of value.

WEDNESDAY, JANUARY 22, 1936

Pontiac and Progress

NOTHING succeeds like success" is an adage that is becoming trite in the English language. Yet there can be little question in the mind of anyone that the success of Pontiac during the past decade is the inspiration that is heading that organization and its dealers toward even greater success in 1936 and the decade to come.

Pontiac came into being in 1926. And during the 10 years that have since elapsed Pontiac shares with only one other company the unique distinction of having built over 1,100,000 cars in a 10-year span. As E. M. Lubeck says elsewhere in this edition, Pontiac was not the brain child of some struggling inventor. Rather, it was the result of painstaking and expensive research by a strong, sound-thinking corporation. Research aimed at developing a six-cylinder car that would sell at a figure then considered quite out of the question. Specifications as to quality, comfort and performance were most rigid. There could have been shifting of specifications to spare cost.

That this idea was sound fundamentally is shown by the public response to the introduction of the new line at the New York show in 1926. During that first year, Pontiac, which was then an offshoot of the Oakland Motor Car Co., registered 48,933 cars. In the second year this figure was moved up to 112,910. The total for 1928 climbed to 183,840. In common with other makes Pontiac registrations declined during the depression, but at the sign of business recovery Pontiac sales swept upward.

During 1934, Harry J. Klingler took over the helm of the company. The new models for that year were already under way before he took it over. In that year the company registered 72,645, which was almost double the low mark of 47,926 made in 1932. During the past year the record of 1934 will be almost doubled as registrations for the first 11 months show a total of 129,111 with a good December still unaccounted for. It is success of that sort that spurs men on to greater achievement.

It is that confidence engendered by winning which we expect to see carry the entire Pontiac organization on to greater heights during the coming year. Now on the 10th birthday of the Pontiac car may we add our best wishes to those from hundreds of others, to the men who during the past 10 years have made the name Pontiac synonymous with progress, and whom during the coming decade we are confident will write a new epoch in automotive history.

Pontiac and People

CORPORATIONS are men from the lowliest sweeper to the president. It is recognition of that touch of nature which makes any organization a success or a failure. Men use machines; machines must never use men. There is need in all organizations to make men feel that they are part of the organization rather than a machine used by the organization. It is this spirit that has dominated Pontiac policy toward its workers. Even during those dreary days of depression, no member of the Pontiac family became a forgotten man. No member of the Pontiac family found it necessary to seek aid outside the family. This is Pontiac's boast. It is more than that—it is Pontiac's guarantee of peaceful, harmonious labor relations in the future.

"—a word in edgewise"

By the Publisher

KLINGLER ON SAFETY

No individual in the industry has taken a keener interest, nor spent more time and effort in studying and promoting the subject of highway safety than has Harry Klingler. It seems fitting therefore that in this special anniversary edition on the occasion of the 10th anniversary of the corporation of which he is the head, that we reprint some of the highlights of a much discussed address which Klingler delivered before the police chiefs of southeastern Michigan, last December:

* * *

"WE SPEND a great deal of money every year finding out what our customers want. So it is with considerable confidence that we tell you that they want cars which will accelerate quickly, negotiate the majority of hills without gear shifting, and transport them at a fairly rapid rate of speed. We are convinced that the public will not buy cars which do not have these performance characteristics, no matter what we as individuals may think about it.

"The public's demand for speedy transportation is reflected in the faster airplanes, capable of cruising at 200 miles per hour; in streamlined trains, capable of 100 miles per hour; in reduced schedules for our famous trains between Chicago and New York; in new and bigger ocean liners capable of crossing the Atlantic in less than four days.

* * *

"THERE IS ROOM for reasonable doubt as to whether speed is the principal cause of automobile accidents. In saying this we mean that certain comments run along the line, 'Automobiles are being made to run too fast. They shouldn't be capable of such high speeds!' What should be the maximum speed—90, 80, 70, 60? Suppose the average maximum speed capacity today is 85 miles an hour, and suppose it were cut back to 60. How much reduction in accidents would result? Some, no doubt, but there is still room for doubt that any major improvement would result. In Ireland, England, Wales, Scotland, Belgium, Germany and Italy, where the cars are much smaller and lighter than ours and not capable of top speeds as great as ours, the rate of automobile deaths per 10,000 motor vehicles runs from two to four times as great as ours. Accidents seem to be more a product of congestion, visibility and other road conditions than speed per se.

* * *

"THEREFORE, to summarize the part the car plays in safety, I submit that the car itself can and does offer a pretty clean record; that the manufacturers have already 'done something' about safety; that we should go slow in assuming that the capacity for high speed per se is the cause for accidents; and that we should also go slow in recommending restrictive legislation which might impair this usefulness of our friend, the automobile, and still not correct the accident situation.

"Second, with reference to the driver, no matter how finely a machine is made, it is still dependent upon men to operate and maintain it. There are now and always will be, operators of automobiles who are too young, who are color blind, who have defective vision or hearing, who are unskilled in the operation of an automobile, who will drive while intoxicated, who ignore traffic signals, who disregard our laws and rules of the highway, who will not keep their cars repaired in a satisfactory mechanical condition."

Pontiac, 1936: "Me Heap Big Injun, Too!"

As Others See It

The Silver Streak

Pontiac's board of commerce fittingly commemorated the manufacturing of 1,000,000 automobiles by the Pontiac Motor Co. with a day of celebration last summer.

A luncheon at noon with Mr. William S. Knudsen, Edward F. Fisher and Harry J. Klingler as the particular guests of honor was followed by a parade featuring the 1,000,000th Pontiac; and tours of inspection through the Pontiac and Fisher plants were arranged for the afternoon and evening.

When the General Motors made its original investment in this city many, many years ago it marked one of the most fortunate twenty-four hours in the city's existence, for in the wake of the Silver Streak has rolled a golden caravan. Probably nothing is more indicative of the stability of the General Motors than the fact that this astounding record of 1,000,000 Pontiac cars has been partly established during a time when the country has been throttled by one of the most stringent money markets in history.

Throughout this period the General Motors and Pontiac have maintained their position of dominance in the highly competitive automotive field or have actually forged further ahead, and they have provided Pontiac citizens with sufficient employment to make possible this persistent march towards the 1,000,000 goal. The strength of an organization which accomplishes things on so impressive a scale almost challenges credulity, for "stop" lights have been flashed against industry all over the world for several years and only the strongest and best fortified have survived.

Hurried readjustments have taxed administrative ingenuity and financial resources to the point that only those fortunate enough to command the maximum in each division have weathered the storm.

It has taken the utmost in managerial genius, coupled with the skill and craftsmanship of Pontiac men in the shops to make 1,000,000 automobiles possible. The city is tremendously proud of the achievements of Mr. Klingler and his associates and is proud of the high type of work which the men in the shops have poured into these cars. Pontiac typifies the peak in motor car design and manufacture in its field and has claimed tens of thousands of buyers from the higher brackets because of appearance, reputation and general excellence. The phase "General Motors" has been known all over the world for more than a decade as have the three words, "Body by Fisher"; and today "Pontiac" occupies a modest corner of this enviable niche.—*Pontiac Daily Press.*

Pontiac's Good Luck

"Pontiac has just become the beneficiary of one of the most important announcements of industrial expansion which the United States has witnessed in the past several years. Aside from governmental projects which are financed from taxation, few entities anywhere have courageously planned to expend three and a half million dollars. The trend has been towards retrenchment, consolidation and a lesser use of facilities already provided.

"At a time when other communities are struggling desperately to raise revolving funds of one nature or another to try and interest even the tiniest industries in locating in their midst, General Motors drops one of the biggest industrial and economic plums of the current period squarely in Pontiac's lap.

"There were no requests for 'free trackage.' There were no requests for 'free sites.' There were no vigorous campaigns to sell stock to local people so that the precarious problem of early financing could be met.

"The announced expansion carries no strings and no requests for donations—donations and subscriptions which any city in the United States of America would have faced with a shout of joy, especially with the significant 'GM' imprint thereon.

* * *

"That the leaders here duly appreciate Pontiac's good fortune has been amply shown by the current expressions heard on the streets the past day or so and by the declarations printed in Thursday's *Press.*

"Good luck can never be controlled, but it can be deeply appreciated; and it is in Pontiac."—*Pontiac Daily Press.*

Congratulations PONTIAC!

IN extending their sincere congratulations to the Pontiac Motor Company on their tenth anniversary, the Firestone Tire and Rubber Company is happy to salute an organization which has contributed so much to automotive progress. It is indeed fitting that such outstanding merit has been rewarded by so notable a success.

For more than a third of a century Firestone have not only consistently pioneered tire improvements but have also built Firestone tires to an unfailing ideal of safety, in order that the truly remarkable performance of the motor cars of today might be enjoyed to its greatest extent.

The Firestone organization is proud of the fact that it has been chosen to assist in supplying the tire needs of Pontiac Motor Company.

Listen to the Voice of Firestone featuring Richard Crooks or Nelson Eddy—with Margaret Speaks, Monday evenings over Nationwide N. B. C.—WEAF Network

Every one of the winning cars at Indianapolis was equipped with Firestone Gum-Dipped Tires. Not one had a blowout or tire trouble of any kind

For eight years Firestone Gum-Dipped Tires have been on the winning car in the Pike's Peak Climb where a skid means death

Scientific recording instrument attached to car shows Firestone High Speed Gum-Dipped Tires stop a car 15% to 25% quicker than other well-known makes—the result of 2,350 separate tests made by a leading university

Firestone

The MASTERPIECE OF TIRE CONSTRUCTION

On Firestone Gum-Dipped Tires, Ab Jenkins drove 3,000 miles at 127.2 miles per hour, over the hot salt beds of Utah, without a blowout or tire trouble of any kind

No Pontiac Workers Went on Public Welfare

Personal Service Dept. Administered All Cases

A manufacturer with 5,500 men listed on its active factory payroll and not one of them a recipient of public welfare during the lay-off periods of the depression.

That is the story and the record of the Pontiac Motor Co. and its employe-administered welfare fund during these recent years of overburdened municipal charities.

It is true that some of its employes appealed to the city for help when they were laid off, but only because they did not know that the Pontiac Motor Co. had requested every welfare agency in the county to send any of its needy employes who were out of work back to the company's Personal Service Department

Gave Advice

This Personal Service Department looked after the ordinary functions of providing food, fuel, clothing and medical service to the company's employes whose incomes had stopped temporarily. In addition, it functioned as a business management department for employes who called upon it at any time for advice of the most unexpected character.

Budgeting wages and household accounts, giving legal advice and in fact "holding court" to settle disputes entirely of a domestic nature, are some of its functions.

A welfare board of 14 factory employes had administered the welfare fund so effectively that Pontiac employes did not have to accept city charity during dull periods of recent years . . . a worthy service to 5,500 factory workers.

Ivan Long, the company personnel director, is secretary of the board. He has been active in employment and personnel direction for 20 years, is the preacher, doctor and lawyer of the department . . . the "father confessor."

Knows the Men

Pontiac Motor Co employes are an industrial-family, with a community of interests. Their tenure of employment is long, 1,553 of them having worked for the company from five to 10 years Add to that number the 561 who have been on the payroll from 10 to 15 years. As a result the average length of service in the factory is over seven years.

Long knows these men. He has seen them come and go for years and years. He knows how they live. It takes a sympathetic nature to fulfill the requirements of this kind of a job. The men come to him with their troubles, their joys and their griefs. He has patched up dangling divorces, hunted up husbands for worried wives and disposed of disagreements of all kinds. Once he settled peaceably an argument which centered on "who should pay for the support of a pig." And the two parties brought the pig into "court."

When men are being laid off and hired back, there are always a number of cases where employes feel that they have been discriminated against; that someone else should have been laid off first or that the other fellow should not have been re-hired first.

Give Them Fair Deal

Long's department looks up every case of that kind that comes to his attention. "It takes from one to two days of our time to handle every case like that," he says.

"We always try to give the men a fair deal. We have them come in jubilant and we have them

(*Continued on Page 42, Col. 3*)

THE EMPLOYES' WELFARE board handles all matters of employes' welfare. It is notable that no regular Pontiac Motor Co. employe was on public welfare during the depression period.

First Pontiac Emblems Popular on Home Mantels

Out at the General Motors proving grounds at Milford stands Pontiac No. 1, a coupe, the first car off the line and the first car to bear the Pontiac name as a product of General Motors.

To the casual observer, the coupe appears to be nothing more or less than a product of the times—1926. To the old timers, however, it has something that no car prior to the date of its birth ever had, namely two medallions on its radiator front, one reading "Pontiac, the Chief of the Sixes" and the other "A Product of General Motors." Both medallions, which follow the Indian motif adopted for the car as well as for advertising, are of Indian copper red.

Up to the time of the first Pontiac, medallions on motor cars were of the single disc type usually of colored enamels and carried only the name of the car. The task of designing a suitable medallion for the first Pontiacs was left to a firm that specializes in enameled medallions and of the dozens submitted for approval all had inscriptions so difficult to read that they were turned down. For Pontiac there had to be the name of the car and the maker's name as well. Consequently, it was decided to break all precedents and use two medallions joined together and place them on the front of the radiator shell. By using two, the story intended to be told, that is, the name and the makers of the car, was solved.

Indian Radiator Cap

The double name plate continued for two years. Then the vogue for radiator ornaments began. Pontiac followed suit with an Indian head attached to the radiator cap itself. It was a remarkably well executed design and actually a work of art in many ways. It had, however, one objection in that as an Indian head it had an appeal to a lot of people who either had an artistic sense or just plain kleptomania. Within a few weeks after the cars with the new radiator ornaments came out, dealers and the factory service departments were flooded with orders for the Indian heads. Investigation showed that those who were ordering replacements reported that theirs had been stolen. They were being stolen from the parked cars in almost every city and taken home for use as paper weights or mantle ornaments. Pontiac was being carried right into the homes of a lot of people, many of whom may have since become Pontiac owners. At any rate, the Indian head itself did a lot of sales promotional work for the car.

Still Use Indian

One of the chief sources of orders was in the western half of the country and more than one of these heads has been found in many Indian settlements west of the Mississippi. The head was given a place of honor due to the widespread publicity when A. R. Glancy, the president of the company at that time, was made a brother of Chief Shiwastakia, chief of the Algonquin nation with headquarters at Los Angeles, and given the Indian name of Chief Pontiac with all the regalia and appurtenances pertaining to the title of Chief.

Since the disappearance of the Indian heads from the regular run of cars, Pontiacs have followed the conventions of other cars as far as radiator ornaments are concerned, but all carry a red Indian head on the bumpers—the red Indian being the trade mark of all Pontiac automobiles.

Reputation is Won in the Field
● Under heavy overloads of Laboratory test, New Departure Ball Bearings must prove their stamina — but it is out on the job for which they are built that their reputation is won. Winter and summer — through mud, sand or snow — under every conceivable load condition, New Departure Ball Bearings have earned a reputation for dependability, long life and low maintenance cost that has made them known as a Master product wherever automobiles are used.
The New Departure Mfg. Company, Bristol, Connecticut. Branches at Detroit, Chicago, San Francisco.
Nothing Rolls ● Like a Ball
2365
NEW DEPARTURE

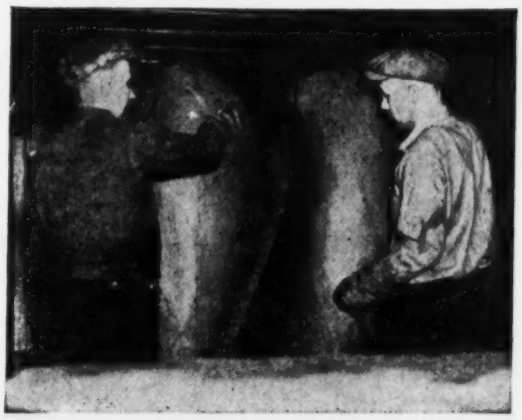
HELPING TO BUILD Pontiac 100,000 MILE QUALITY

BONDERIZING HOLDS THE FINISH

PREVENTS RUST ON FENDERS AND SHEET METAL PARTS . .

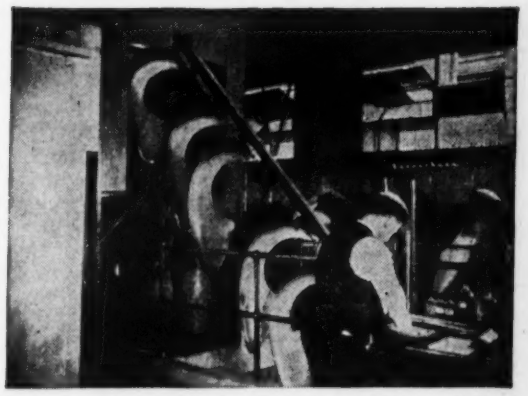
To maintain the fine appearance of this longer-lived car, Pontiac not only uses the highest grade lacquers and enamels, but all fenders and other exposed sheet metal parts are Bonderized.

Bonderizing under the finish assures a more secure anchorage for the finishing materials. The smooth, polished steel surface has been converted to a composition that has a special affinity for paint. Bonderizing provides better adherence and greater finish permanence than can be secured by any other method. It holds the finish, preventing chipping and peeling, eliminating the untimely formation of rust.



Bonderized fenders entering the enameling section

The 1936 Pontiac straight eight, four-door touring sedan



Fenders entering the Bonderizing section at the Pontiac Plant

Bonderizing under the finish prevents the spread of rust around accidental dents and scratches. It is a barrier that confines rust to exposed metal only, preventing creeping under the finish and the ever widening circle of rust that is so common with less effective protection.

PARKER RUST-PROOF COMPANY
2203 E. Milwaukee Ave. • • Detroit, Mich.

•

For more than a generation, the Parker Rust-Proof Company has devoted its entire energy and resources to the development and improvement of rust-proofing processes. Literature will be sent upon request to manufacturers and technical men who are interested in improving the finish on their products.

PARKER
RUST-PROOFING
processes
BONDERIZING • PARKERIZING

Long Study Preceded Pontiac's Introduction

Popular Price Car Weighed Carefully by GM Officials

(Continued from Page 6)

build and one which would have longer life.

With the motor and chassis of the now named "X" car ready for production, the next big question was the body. It was here that all the others had really fallen down. Finally, and the records show it in detail, Fisher Body officials came to the rescue. They made a "price" and again the records show that Fisher Body deserves credit for, without that "helpful price" there might still have been no Pontiac. And the records also show that right at this point the "X" car began to attract attention in every department of the corporation, for it was called "the X car—motor by Anibal, body by Fisher, and chassis by everyone else in GM."

First-Year Success

Yet, strangely enough, the car which was to prove an outstanding success in its first year and which today is still even more of a success, had very little in it in common with the other GM car units. The joking to the extent "the chassis by everyone else in GM," was to become a roorback.

The next big question was how was Oakland to produce the car. The old assembly line at the Oakland plant could not carry two lines of cars, for that would mean complication and adjustment too expensive to carry on. It would mean a mechanical picture puzzle in which there would always be some parts missing. But it had to be done some way. A survey was made of the old building in which there had been assembled Oakland cars for over 20 years, a plant ill-suited to making another car which was to be the little brother of the Oakland automobile.

Completing the survey in June, 1925, Oakland production men laid out a path in the old building for another assembly line, swinging the line here and there where space seemed to permit room for the workmen, a program the like of which had never been seen before and impossible today from an economic engineering standpoint.

Odd Assembly Line

There was no alternative. Funds for a new building were not available and so the plans were okehed and construction of the assembly line was begun. It is this famous line with all its difficulties the engineers of Oakland encountered, that is responsible for the new Pontiac plant and for the Pontiac Motor Co.'s ability to turn out quantity production to meet the Pontiac dealers' sales demand.

Holes were cut in the floor of the old Oakland assembly building through which the assembly line chain, like an enormous snake, crawled into the basement of the building. Here it circled around and then snaked its way up into the plant, grasshoppering the railroad track and the Oakland line and finally ending at the test tread mills.

Worked on Duck Boards

To those mechanically inclined, the line was a marvel in economy of space. To those who have followed a chassis on the modern assembly lines and noted the exactness of each and every detail, the old Pontiac line as it dove through the floor and rose again and once more descended into the basement, was a trip through a chamber of horrors for it was a mixture of overhead and underpass devices. A trip through the basement with water seeping in from all directions forcing the mechanics to work on duck boards, something which quite a number of them were familiar with because many had seen service in the trenches in France. Yet with all the difficulties, production began up to within a month of the day that the new car was to be shown in New York, that day 10 years ago Jan. 10, 1925, the now-called "X202" had no name and no price.

FROM ONE TO A MILLION. Here is Pontiac No. 1,000,000 with its No. 1 ancestor and the hundreds of employes who have been on the company payroll continuously during the nine and one-half years that intervened.

General Motors already announced the coming of a new car. Leading periodicals and magazines had spreads and page copy. Dealers had been notified of a new car. New dealers were being recruited in every section of the country. Twenty-four district managers (now zone managers) had augmented their field forces. Sales agreements calling for a conservative allotment of the new cars were piling up at the home office. Thousands of names for the new car were being suggested. Guessing was rife.

Like Real "Copy"

Advertising counsel was called in, among them being Glancy and Henry T. Ewald of Campbell Ewald advertising agency. Glancy had suggested the name Pontiac. It sounded like real "copy" and Ewald and his associates hustled back to Detroit. The Indian name suggested color, Indian motifs. Artists were called in and feverishly everyone in the organization set to work. In a few days a presentation with Indian atmosphere was ready. Then on to New York. Prices, too, were set—$895 for either the coupe or the sedan, a two-door job. Just two models.

The presentation in New York was a momentous occasion. Board members looked askance at each other when the name was proposed. Yet, when the vote was taken only one objection was raised. With the final okeh, the wires between New York and Detroit and Pontiac began burning up and that night all the dealers and the sales organization had the good news. At New York, Chicago and all the other shows Pontiac held the lime-light. And so Pontiac was born. The first year 76,285 were produced, a tribute to the stamina and performance built in the car. More than that it was a record for a new car in its first year.

Demand Increased

The first year's production brought an even greater demand in the year that followed, for the sales organization of dealers had more than doubled. With it followed difficulties in production, which were to be solved by the officials of the corporation. On a hot summer's day, three members of the board arrived in Pontiac. They had been attracted by the remarkable progress being made. They were Pierre du Pont, with his brother Lamot and John Raskob; the last named then guiding the finances of the corporation. They wanted to see how the cars were being made. They took the famous chamber of horrors trip down into the basement, where because of a heavy rainfall the day before, the duck boards on which the men worked barely showed out of the water. They saw the maze of overhead and rumbling machinery.

Needed New Building

The tour lasted only part of the contemplated trip. The visitors paused, dodging dripping oil from the over-passes, and it was Raskob who led the way back to the office. "You built 76,000 cars in that rat trap!" he said. "Well, how do you expect to increase production under those conditions? What you need is a new building, a plant so modern and so flexible that production can grow. You have to consider that the dealers depend on you for the product so they in turn can make money."

And, thus it was that consideration for the dealers, as well as the impossibilities of increasing production in an already overcrowded plant, led to the building in record time of the new Pontiac plant. Over $15,000,000 was spent on the job which included the land on which the plant stands.

When in operation in its first year early in 1927, production figures began bounding. First it was 400 per day, then 500, and the peak was reached late in the summer when production began running close to 1,000 per day—the average for weeks at a time being close to 900 a day. By 1929 Pontiac reached a sales volume that put the organization in position to command a leading position at the shows.

Records Outstanding

Pontiac's records for the past few years are outstanding. In 1933 Pontiac appeared as an eight-cylinder job, and in 1934 the six again found its way into the line. Pontiac sales in 1934, through the efforts of the administration headed by Harry Klingler, who became president of the now Pontiac Motor Co., took a leading position In 1935 sales records show a still improved position. Nineteen thirty-six, the 10th anniversary year of Pontiac, with an increased dealership organization, starts out with the brightest prospects for increased business it has ever had.

OUTWARD PROMISE
FULFILLED WITHIN

To Ternstedt has fallen the task of designing and producing the fittings which give Pontiac interiors the style and beauty that distinguish Pontiac on the road.

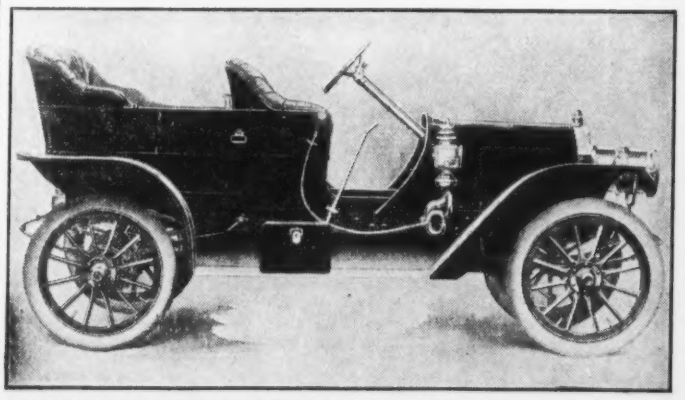
We extend our sincerest greetings to Pontiac on reaching its tenth milestone — and in greeting them raise our hats to engineers who have insisted upon perfection in every detail — upon outward promise carried out in every inner touch.

TERNSTEDT

MANUFACTURING DIVISION, GENERAL MOTORS CORP.

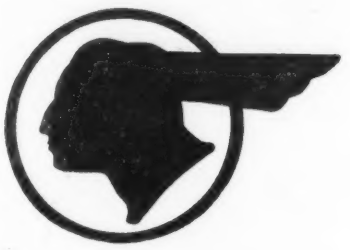
World's Largest Manufacturers of Automobile Body Fittings and Hardware

DETROIT, U. S. A.



FIRST HORSELESS CARRIAGE of Oakland Motor Car Co. Look at those brass headlights; that honk, honk, horn; them hard rubber tires. She drove from the right and had no top.

CONGRATULATIONS TO PONTIAC



on its tenth anniversary

The first Pontiac to roll off the assembly line in 1926 faced a tremendous task. An entirely new and unknown product, it was competing with cars whose names were household words.

Today, many of those cars are no longer manufactured. Others now occupy a secondary position in public favor. But Pontiac has gone on to occupy a dominant place in the industry.

More than a million Pontiacs have followed the first one off the assembly line. In 1935, Pontiac doubled its sales over the previous year.

You who keep in touch with things automotive already know the reasons for this splendid record. Pontiac has a reputation for dependability — more than 83% of all Pontiacs ever built being still in daily use. Pontiac has made an impressive number of contributions to automotive progress. And, most important, Pontiac has never compromised in matters of quality.

We congratulate Pontiac on the rapidity with which it has won a nation's goodwill. But we congratulate it, above all, for never deviating from its original program of offering the outstanding value in its own field.

GENERAL MOTORS

A Public-Minded Institution

Present Pontiac Came from Buggy Co. Progenitor

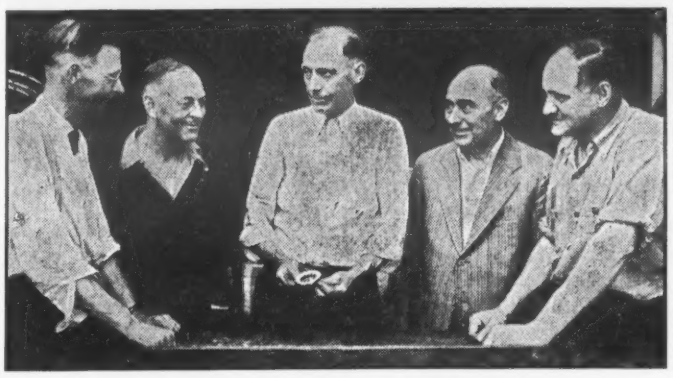
Reputation for Quality Began in Whipsocket Days

While the Pontiac car had its origin in the calculating brain of a man, with the vision to foresee a wide market in the price range now occupied by Pontiac, the first automobile to be turned out by the progenitors of the present Silver Streak happened more by accident than by design.

You have to go back to the gay nineties, back to the dashboard and whipsocket, to get at Pontiac's beginnings. At that time Pontiac, Mich., had several organizations making carriages, of which one of the foremost was that started in 1893 by Edward M. Murphy, named the Pontiac Buggy Co., the grandfather of the present Pontiac Motor Co.

Murphy's organization had an enviable reputation for fine carriage work. But shortly after the turn of the century, it began to feel the pinch of rising labor costs due to the desertion of skilled labor to Flint, already gaining prominence as a rising center of manufacture of the new-fangled motor car. Specialized workers could get twice the wages there that the carriage plants paid, and gravitated toward the magnet of the higher pay check.

So the carriage moguls at Pontiac looked seriously at this new invention, and many of them decided to try their hand, and capital, in the growing industry. They gravitated into it, although they had no business to, for no other apparent reason than that carriages and motor cars supplied transportation, and both ran on wheels. There seem to have been no better motives. Carriage men were not engineers in the new industry, which was primarily engineering in that early day. Few carriage men, as a consequence, lasted for any length of time in it.



ONE HUNDRED AND TEN years of service with Pontiac. These five employes have an average length of employment of 22 years.

Murphy got into the new venture by organizing, on Aug. 28, 1907, the Oakland Motor Car Co., for $200,000. He took the name from the county of which the city of Pontiac is the governmental seat.

Buy Rights

The new company acquired rights to a two-cylinder car designed by A. P. Brush for Cadillac, but which the latter company did not want. Brush had an established reputation as an engineer by having designed a successful one-cylinder Cadillac, and the Brush car.

To build the new car, Murphy set aside one building in his carriage plant containing 50,000 square feet of floor space, for his idea was to assemble the car from parts manufactured outside. Today, the floor space required for Pontiac production totals 4,000,000 square feet.

The two-cylinder model not proving a sales success, the company entered the market in 1908 with model K, a four-cylinder car powerful for its time and well priced competitively. This car won fame as a hill climber, and public acceptance moved production from 278 cars in 1908 to 1,035 the following year.

This quick upturn brought on financial growing pains, and the owners listened attentively to the absorption overtures made by W C. Durant, then getting General Motors under way. On Jan. 20, 1909, the board of GM authorized acquisition of a half interest in the company, and Durant immediately started acquiring stock. One of the chief attractions in the Oakland company for Durant was "Ed" Murphy, a dynamic young man for whom was predicted a brilliant future in the new industry, a hope stilled by the death of Murphy in the summer of 1909.

Lee Dunlap Tops

Upon his passing, the company, now in full control of General Motors, named Lee Dunlap general manager. He held that post until he was succeeded by George E. Daniels, an early associate of Durant's in the automobile business. Daniels headed Oakland until 1914.

Dunlap was with the company during the 1910 money tightness. In that year Oakland production soared to 4,000 cars, necessitating a huge expansion program. The capital outlay involved was said to have contributed to the financial difficulties of General Motors in this period. At one time creditors were reported almost as frequent callers at the plant as potential purchasers.

In 1913 Oakland expanded its market potential by bringing out a light, fast four with a self starter, and its first six priced at $2,450, a modest figure for that day. Production for the year soared to a new peak of 8,618 cars.

In 1914, Fred W. Warner became head of the Oakland company and remained in that position until 1920. Under him production increased rapidly, as is shown and commented upon by Arthur Pound in "The Turning Wheel:"

"1916—27,000 cars; the V-8 introduced.

"1917—35,000 cars; the 'light six' sold for $795.

"1918—30,000 'light sixes'; first offering of closed cars.

"1919—52,000 'light sixes' sold on a rising market.

"Automobile prices reached a peak in 1920, owing to scarcety of materials caused by war. Pioneering in the light car field with closed bodies was so much of a marked marketing experiment for Oakland that dealers were required to take one closed car with each carload shipped from the factory."

A Golden Ten

The decade from 1920-30 was the most prosperous for Oakland. In that period the city of Pontiac grew faster than any other industrial city in its classification.

Out of the post-war uncertainties came a new managerial group to Oakland, and with them came George H. Hannum, in 1920, as president and general manager, together with B. H. Anibal, who today is vice-president and chief engineer. He is credited with "fathering" the first Pontiac car and every new yearly model since that time.

A. R. Glancy became general manager in 1925, and headed the division until 1931. Under his regime the highly successful "Pontiac Six" was launched in January of 1926 to provide a companion car to the Oakland.

However, the "little brother" proved so lusty a youngster that he established a new high record for a first year car when Pontiac output alone reached 76,783 cars in 1926. Although Oakland at that time was enjoying wide acceptance as an "8", the car became more and more a selling "stooge" for Pontiac and was finally dropped in 1931.

Comes Pontiac

These first-year Pontiacs were built in the same plant as Oakland cars. The plant was using all its convenient space for Oakland production. It also, was an obsolete plant, not laid out for modern large scale production, not for an assembly line a quarter-mile long. To build Pontiacs in the same building at the same time Oaklands were being built, necessitated running the Pontiac line into corners which offered at least some elbow room for workmen at assembly posts. The result was probably the most remarkable assembly line ever seen in the automobile industry. In its dips and swerves and sudden angles, it looked like a roller coaster.

On this jig-saw pattern 76,000 Pontiacs had taken from in 1926. Greatly enlarged expanded sales for the coming year were in prospect. But there was no place to build them. To meet this contingency, a new home for Pontiac was started on the Northwest edge of the city in early 1927, and within 90 days was sending out finished cars to the four corners of the globe.

This project represented the largest single factory structural contract awarded in the United States in 1926, and resulted in what is declared today to be the most modern complete automobile plant in the industry.

All Pontiac production was transferred to this new and modern home as early in 1927 as the various units were completed. Pontiac output, this year, climbed to 127,699 units.

So rapidly was the fame of the car spreading that in February of 1928 a third assembly line was laid down between the orig-

(*Continued on Page* 54, *Col.* 3)

CONGRATULATIONS

Pontiac

. . . . your outstanding success of the past ten years is a tribute to capable engineering, precision manufacturing and far-sighted sales management.

DELCO PRODUCTS CORPORATION...
DAYTON, OHIO

DELCO-LOVEJOY HYDRAULIC SHOCK ABSORBERS

Good Work, Pontiac

Keep it Up...

☆

The B. F. Goodrich Company takes this opportunity, Pontiac, to congratulate you heartily on the completion of ten highly successful years in the fast-stepping automobile industry and tell you that your record of progress has been as inspiring as it has been phenomenal.

Pontiac and Goodrich have "gone places" together many times in the past decade. Since your birth you have built cars that were the last word in safety, smartness and sturdiness. Goodrich, too, has been equally interested in motoring safety and is proud of the fact that it has kept pace with every advancement made by the motor car industry. And it is also proud of the Golden Ply blow-out protection it has given to all Pontiac owners whose cars are equipped with Goodrich Safety Silvertowns.

Our ability to serve you in the past has given us a tremendous amount of satisfaction. May we be of even greater service to you in the future. Goodrich, America's oldest tire manufacturer, and Goodrich dealers from coast to coast join in wishing that the years to come may bring even greater fame to the name PONTIAC.

The B. F. GOODRICH COMPANY

Manufacturers of

Goodrich Safety Silvertowns with the Life-Saver Golden Ply

Must Spend Millions Before New Pontiacs Appear

Each Line Introduced Only After Re-tooling

It is doubtful whether the public, or the majority of the trade for that matter, have a real conception of what it costs in capital outlay of money for the continuous expansion and retooling programs of a company like Pontiac.

During the last 18 months Pontiac has spent over $7,000,000 for the tools, dies, equipment, etc., required to bring out its 1935 and 1936 lines of cars. And that does not include the huge Fisher Body expenditure of several millions for mammoth presses and building extensions needed to produce the solid steel turret top bodies for Pontiac.

Set New High

These expenditures are the largest that Pontiac has made since its new and modern plant was constructed in 1927.

Almost three-fourths of this vast sum was spent in the summer and fall of 1934 to prepare for the 1935 Pontiac cars, which involved complete tooling up for a line of sixes and for the radically new turret top bodies.

A production schedule of 150,000 cars, which was a great increase over the previous two or three years, called for expanded plant facilities.

No new buildings were necessary, since the Pontiac Motor Co. possessed what is declared to be the most modern plant in the industry, capable of producing close to 400,000 cars a year. So the company turned to a more intensive utilization of the plant space already available.

Few plants can boast of a layout which allows for a maximum of convenience in manufacture and a minimum of wasted effort and unnecessary transportation in the fabrication of the car's component parts as this 2,700,000 square foot plant at Pontiac.

Sheet Metal Plant

Most of the equipment installations of the last 18 months have been in the sheet metal plant, which makes stampings of all kinds, and in the motor plant, where engine blocks and all motor parts are machined, assembled and tested. The chassis and car assembly plant was improved greatly, too, but for the most part it was of a reworking or retooling nature rather than the installation of new equipment.

The "silver streak" radiator and hood grilles which identify the 1935 and 1936 Pontiacs so distinctly, called for one of the major new installations in the sheet metal division.

A large new fender press and a battery of four flash welding machines was installed to manufacture the new type of deep drawn broad skirted fenders used by Pontiac.

Machines Reconditioned

Other smaller presses were installed and some 18 former presses completely reconditioned.

The largest retooling expenditure, however, occurred in the motor plant, where a complete new line of machinery was designed to build the blocks and parts of the new six-cylinder engine. This equipment represents the most advanced ideas in industrial machinery. Efficiency, high production, precision and quality workmanship were achieved in the highest degree without boosting production costs.

Some of the drilling and milling machines are marvels of mechanical engineering and were designed especially for this Pontiac installation.

To enumerate these machines and tell what they do would require more than a page of this publication.

Many columns of space already have been devoted to the giant four-story presses in the Fisher Body plant used to manufacture turret top bodies for Pontiac cars. Nothing like them had ever existed before.

When it was decided that the popularity of the 1935 Pontiac car called for a further increase of production during 1936, a new expansion program was launched. It called for an expenditure of over $2,000,000 by Pontiac Motor Co. alone, and a like amount for increased building capacity and more new body presses at the Fisher Body plant.

Boost Capacity

Although no radical changes were made in the 1936 design, this large sum of money was needed for new machinery, dies, manufacturing equipment, etc., in order to step the production up.

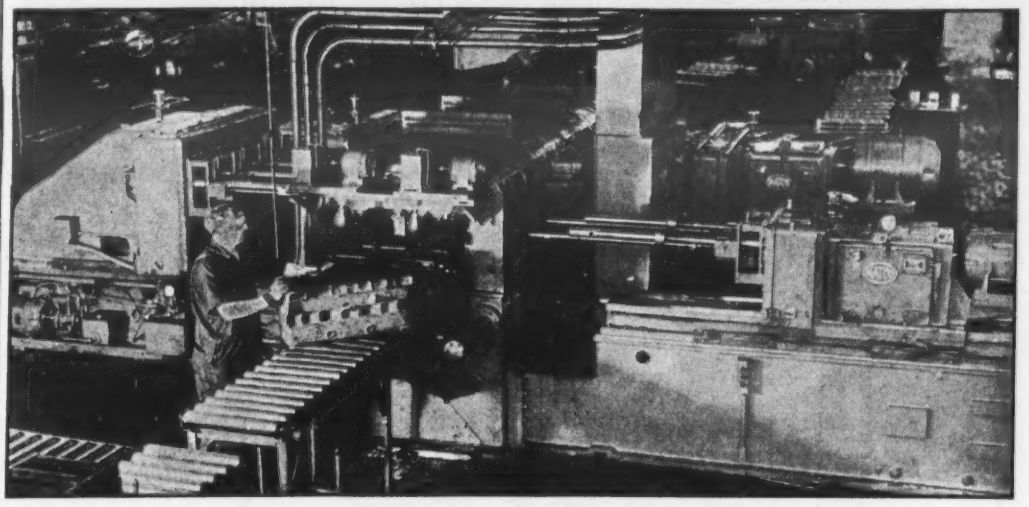
Expenditures were made as follows: $370,000 for retooling the sheet metal plant; $500,000 for retooling the motor plant; $150,000 for retooling the sheet metal finishing and assembly plant; $500,000 for reconstruction and retooling foundry; $400,000 for body dies, and $100,000 for office building renovation.

In the motor plant the scheduled increase in production necessitated duplicate units of many of the machines, as well as several new and modern types of installation.

New presses again were added to the sheet metal department and there was considerable rearrangement.

A new sheet metal rust-proofing department was installed which operates at the highest speed of any similar set-up in the industry. Final inspection and assembly changes are more progressive and more efficient and were made necessary by the new car design, which requires an even finer standard of workmanship than heretofore.

When design and engineering keep a car continually in the forefront of the industry, as in the case of Pontiac, expenditures of millions of dollars a year are necessary to keep the factory modern and efficient. The paradox of the world's greatest manufacturing industry is that huge sums of money are spent annually to keep costs down.



SPECIAL MACHINES were designed and built for Pontiac when the six-cylinder lines were added in 1935. There is no other machine just like this one in the industry and it cost a fortune. It performs many operations on Pontiac engine blocks and contributes to the 100,000-mile dependability.

IT'S A MISNOMER that everyone is laid off when the plant shuts down between models. Pontiac's shut-down period in 1935 was the shortest in its history and 40 per cent of the company's employes were engaged moving and installing machinery, cleaning up the plant and moving stock.

Congratulations! **PONTIAC**

Congratulations for your ability to forge ahead during the decade which saw our country rise to the highest peaks of prosperity and visit the lowest depths of adversity.

Congratulations also for your insistence on the highest quality in materials, workmanship and equipment... upon your willingness to cooperate in perfecting new developments in lighting.

Parallel standards of quality performance and service naturally drew Tung-Sol and Pontiac together in a relationship which has been satisfactory in every particular.

Tung-Sol has furnished millions of lamp bulbs to car manufacturers every year for many years; and has been making them since the first automobile was lighted by electricity.

TUNG-SOL

TUNG-SOL LAMP WORKS, INC.

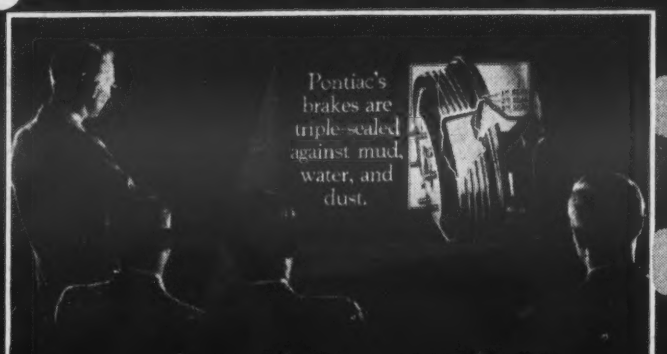
Sales Offices in Principal Cities

General Office: Newark, N. J.

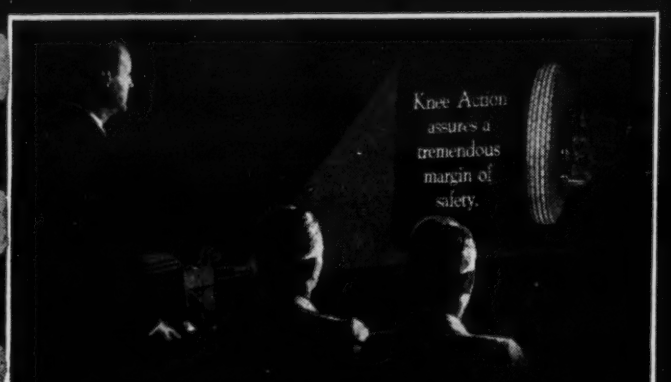
Sales Managers' Service

for

—making meetings interesting—

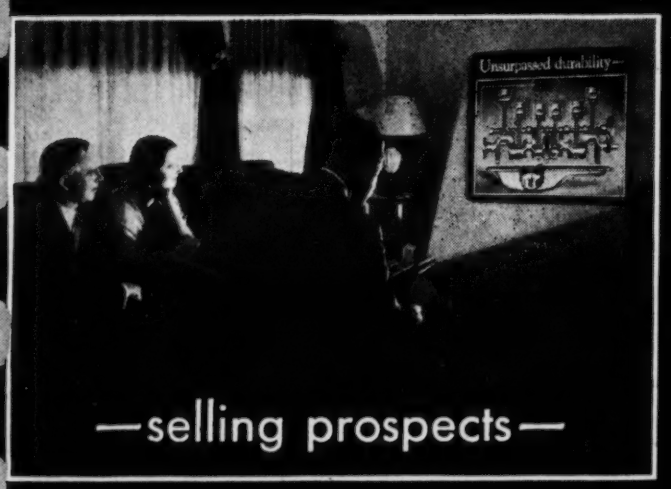


—complete product information—

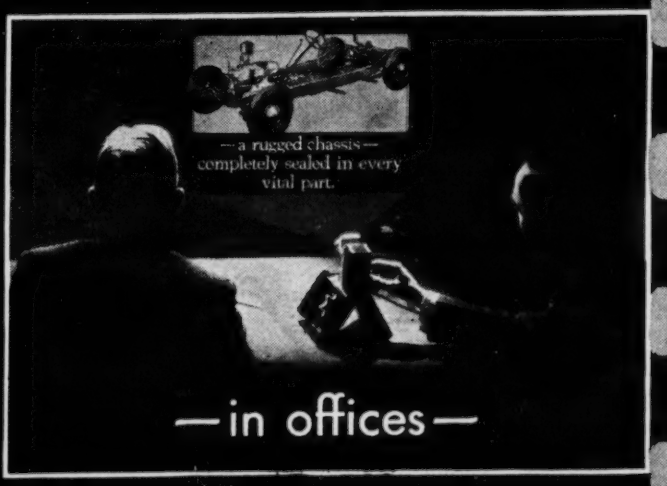


—training new salesmen—

—keeping salesmen trained—



—selling prospects—



—in offices—

—in homes—

—in the closing room—

Jam Handy Picture Service, INC.

Jamison Handy, *President*

Sound and Titled Motion Pictures and Slidefilms

New York Detroit Chicago Hollywood

Pontiac Engineers Proud of Their Achievements

Exhaustive Tests Precede All New Motor Features

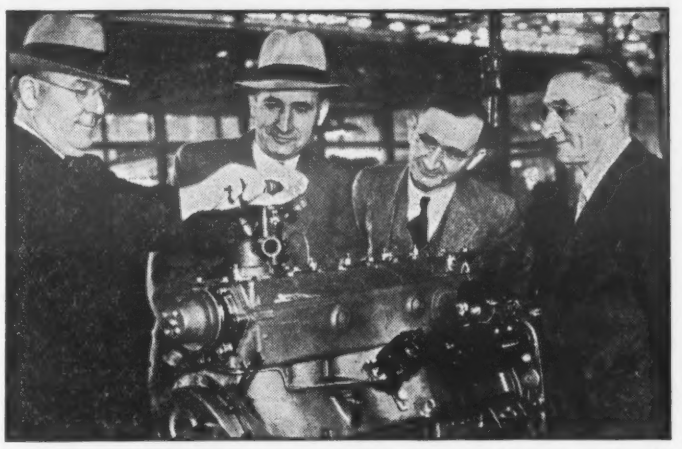
Engineering in Pontiac automobiles, from the first cars produced in 1926 and including the present 1936 series, has constantly attracted the attention of the engineers of the motor car industry as well as the car dealers throughout the world. Every series Pontiac has shown distinctive advances in engineering design and construction. None of the features has been spectacular unless it was the basic almost square motor which engined the first Pontiac and startled the engineering world by its radical departure from the small bore and long stroke practices of the time. Only such features or devices, which long time tests in the Pontiac engineering laboratories or on the well known GM proving grounds proved practical, have been adopted—features which insure long life, dependability and performance for the buyers.

Beginning with the first car, which had built in it sound engineering fundamentals, each year Pontiac has been presented for public acceptance with new engineering features making for performance, economy and dependability, plus bodies of the latest type and style. Yet each one has utilized the basic principles of the first cars, combining refinements here and there for even better performance.

The first mechanical feature, one which has attracted attention in the engineering world, was the harmonic balancer, a combination of mechanics and physics which absorbed the periodic vibrations of the crankshaft, has added smoothness to engine operation and has taken a place in the general mechanical world as well. It has solved many of the problems of industrial plants in reducing vibrations of line shafts and other power transmission equipment. In the Pontiac engine almost complete absence of vibration has reduced the wear of bearings and other correlated parts.

Many Developments

Following in rapid succession, Pontiac engineering developed the cross flow radiator, safety hydraulic brakes, crankcase ventilation, diamond bored piston pin holes, plugged piston pins which reduced oil pumping, electroplated pistons which have increased piston life, new silver alloy bearings and ventilated distributor heads which reduce possibilities of vapor condensing on the breaker points, and many other simple common sense engineering refinements throughout the motor transmission and chassis. "Gadgets," a term dear to the layman, are absent from the Pontiac makeup, which explains why year after year Pontiac cars continue to represent the latest in advanced engineering.



P. H. MacGREGOR, general plant manager of Pontiac Motor Co. puts the final twist on the No. 1 six-cylinder Pontiac engine for 1936, as it comes off the motor assembly line. Left to right: his interested audience is made up of B. H. Anibal, vice-president in charge of engineering; Carl Heymann, superintendent of the motor plant and Frank W. Mowbray, general plant superintendent.

And back of all this tested and proven engineering is Ben Anibal, who, with his crew of 182 assistants, work constantly to develop new features or refine those which experiment and experience have proved their value. Anibal's engineering laboratory, lighted day and night, builds, tests and works out thousands of suggestions picked up here and there. Some have value. Some need still further investigation and tests. They may appear on next year's car, or they may be held over for some car to be produced years from now. Ben and his crew of assistants are practical men and if the suggestion has merit Anibal waits for still further developments before the device goes into the Pontiac car's makeup.

Gives Selling Points

To the dealers and salesmen of the Pontiac field organization, Benjamin H. Anibal has been a selling inspiration. It has been Ben's simple but effective engineering that has given the salesmen from coast to coast something to talk about in Pontiac automobiles; given them a line of selling talks with performance to back up those talks and set sales records in various parts of the country. Shop service men, too, more than once have given Anibal's Pontiac engineering the blue ribbon for turning out a car easily and quickly serviced.

Anibal's first Pontiac, the 1926 model, first made a hit with the salesmen. It had what salesmen have always wanted, simplicity and rugged construction. That made sales talk. Then it had performance on the roads and hills. The sales record of the first year was not really a sales department glory. It was a triumph of engineering. Every Pontiac since that time, right through to the millionth car and continuing on with the 1936 series, has given the sales crews of the dealers their opportunity to cash in. So well has Anibal furnished the dealers sales ammunition in the way and kind of engineering talk that in 1928 and 1929 Pontiacs outsold competition of every kind, regardless of price class, in 11 cities in the United States. The records show that in three cities of the country the dealers in those points outsold competition two years in a row.

Wide Experience

Anibal's engineering experience has not been confined to the medium-priced car field alone. For 10 years he was a leader on the Cadillac engineering staff. He put in a little over a year with the well known "Train Load" Dick Collins when Collins took over the Peerless, then being made in Cleveland. He solved many of the Peerless problems. During the World War Anibal was one of the group summoned by the War Department to develop the Liberty engine. His part of the program consisted in developing the engine for aircraft purposes and was one of the group that helped Harold Wills develop the bearings which enabled the engine to stand up under heavy duty.

Today, the Silver Streak Pontiac, because of Anibal's work, has a motor and chassis makeup that is better than ever. Its engine is a culmination of better design and better manufacturing methods, for Anibal has combined not only his basic elements of internal combustion engines, but added precision methods of manufacture that make for long life and service to the owner. It was Anibal who only a few years ago introduced the diamond drills and cutters in machining that gave rise to the statement that the precision methods used in Pontiac manufacture were equal to the methods used in making the finest watches. With his crew of trained engineers today Anibal has worked out some of the outstanding engineering methods and manufacture in the industry and he himself is recognized as one of the foremost leaders in the design of gasoline engines. Through the efforts of his organization many new ideas have been incorporated which give the dealers and the dealers' salesmen something to talk about.

Startled Engineers

Anibal's particular bent in motor car engine construction has been comparatively slow-speed engines, engines of short-stroke and big bore, ample weight in the block castings to give rigidity and utmost strength to overcome vibration periods, lots of room for valves with almost oversized spaces for the water for cooling the valves and cylinders, and generously sized bearings, together with "gushing" pressures for lubrication. Anibal startled the engineering world several years ago by giving more space between the the cheek of the throws of the crankshafts and the end of the connecting rod bearings than had ever been done before. He discounted the idea that the clearance between the two had to be of such small tolerance that oil pressures would be increased. Anibal engineered in new clearances with the result that all Pontiac engines right up to the present minute permits oil to gush freely through the openings and with the oversized oil pump continue to hold a record of pumping 130 gallons of oil an hour through the oiling system.

Anibal's engineering eschews anything in engine make up that appears to have ideas bordering on them spectacular. He makes for simplicity and proven common sense. For example, periodic or harmonic crankshaft vibrations, the bete noir of all gasoline engine men, are absent from the

(*Continued on Page* 43, *Col.* 1)

The Inland Manufacturing Company

DAYTON • OHIO

MANUFACTURERS OF

STEERING WHEELS • HARD RUBBER AND COMPOSITION

MOTOR MOUNTS • METAL-RUBBER

WINDSHIELD AND WEATHER STRIPS

RUNNING BOARDS • METAL RUBBER

SPRING EYE BUSHINGS • RUBBER CUSHIONED

HARD AND SOFT RUBBER MOULDED PARTS

INLOCK CEMENTS

★

★ **New Continuous Sheet and Strip Mill Broadens Bethlehem Service to Automotive Field** ★

★

BETHLEHEM'S new continuous sheet, strip and plate mill, now swinging into production, will considerably broaden the scope of this company's service to automotive manufacturers.

Embodying all the latest refinements in rolling and finishing equipment, this new unit places Bethlehem in position to meet every automotive requirement for sheets and strip, coiled and flat, including cold-rolled sheets for doors, hoods, panels, and major body sections; lamp and crown-fender stock; and both hot-rolled and cold-rolled strip. The new mill is at Lackawanna, N. Y., in the Buffalo district—a location from which convenient, quick shipment can be made to principal consuming areas.

The products of the new continuous sheet and strip mill, in conjunction with other Bethlehem products—including alloy and carbon steels, tool steels, stainless steels, special rolled sections—place Bethlehem in position to supply virtually every form of steel that finds application in the building of motor cars and trucks.

★ *District Offices: Albany, Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Detroit,* ★ *Honolulu, Houston, Indianapolis, Kansas City, Los Angeles, Milwaukee, New York, Philadelphia, Pittsburgh, Portland, Ore., Salt Lake City, San Antonio, San Francisco, St. Louis, St. Paul, Seattle, Syracuse, Washington, Wilkes-Barre, York. Export Distributor: Bethlehem Steel Export Corporation, New York.*

BETHLEHEM STEEL

BETHLEHEM STEEL COMPANY

GENERAL OFFICES: BETHLEHEM, PA.

Headquarters for . . .

ALLOY STEELS

★

Republic appreciates

PONTIAC'S

recognition of its

fine quality steels

★

REPUBLIC STEEL CORPORATION

General Offices:

CLEVELAND, OHIO

Alloy Steel Division — Massillon, Ohio

"Columbus" Congratulates Pontiac on Its Tenth Anniversary

We are proud to be one of the manufacturers contributing a quality product for one of America's finest cars.

COLUMBUS COATED FABRICS CORPORATION

COLUMBUS, OHIO

Makers of Quality Coated Fabrics for Over a Third of a Century

WALTER H. NOYES

DETROIT SALES REPRESENTATIVE

Branch Offices:

NEW YORK · DETROIT · CHICAGO · SAN FRANCISCO · LOS ANGELES · DALLAS

RICHMOND · ATLANTA · NEW ORLEANS

Slow Driving Pays Money, Proving Ground Tests Show

Some $90,000,000 in gas and oil expenses would be saved each year if only half the motorists in the United States observed nine simple driving practices evolved on the General Motors proving ground at Milford, Mich. by the Pontiac Motor Co., while conducting a series of mileage tests under supervision of B. H. Anibal, vice-president and chief engineer.

That slow driving pays was conclusively shown by the tests, made with eight leading makes of cars priced below $850, each one scientifically checked at every 10-mile speed from 20 to 70.

At 20, the best mileage delivered by any of the eight makes was 24 miles to the gallon, while at 70 none of the eight could do better than 13.9, or 56 per cent less, indicating that the 70-mile driver pays out almost twice as much for gas and oil to cover one mile as does the slower driver.

The lowest mileages delivered by any of the eight cars was 19.7 at 20 miles per hour, and 10.7 at 70. With the eight cars checked under identical driving conditions, it was found that as between the best and worst the maximum difference in gasoline and oil costs was 15 cents per 100 miles of driving, or less than one-sixth of a cent per mile.

Nine Bad Practices

The nine practices which Pontiac engineers discovered contributed most to unnecessarily high gasoline consumption were: Starting unnecessarily often; driving with choke on; tramping on the accelerator; too much second gear driving; accelerating on hills; fast driving against wind; sustained high speed driving; idling motor, and too fast driving on slippery road.

These practices result in astonishingly large cuts into the gasoline budget, as the following findings by Pontiac engineers will show:

"Every time you start, you use enough gas to drive a half-mile. The remedy is to look ahead for signal lights, move into them at reduced speeds and glide through on the green instead of slamming on the brakes and then having to shift through the three gears.

"Every time you drive a mile with the choke on, you use enough gas to drive three miles.

"Every time you push the accelerator down to the floor you waste up to 60 per cent of your fuel. Accelerate gradually, and save gas.

"Every time you drive in second with the accelerator down to the floor you waste upwards of 70 per cent. To save gas don't drive above 25 m.p.h. in second and accelerate gently.

"In driving up a grade or hill you decrease gas economy 25 to 50 per cent. To save it, don't accelerate on a hill but drive at a uniform speed in high gear.

Wind Cuts Gas

"When you drive at your normal rate into a wind your gas economy drops 10 to 20 per cent. To save it, reduce your normal speed.

"In addition to its danger, high speed driving wastes gas. At 50 you can go 25 to 30 per cent farther on the same amount than at 70.

"In slippery pavements, the more skidding you do, the more gas you use. Reduce speed until you have sustained traction on both rear wheels. It's not only safer, but cheaper, too.

"If only half the drivers in the United States would follow enough of these recommendations to effect a 10 per cent reduction in their annual fuel consumption, the saving would amount to $90,000,000."

Pontiac Instruction Book Breaks an Old Tradition

There is something new in instruction books.

One day last summer several men at the Pontiac factory got to talking about the traditional instruction books given to owners of new cars. From their files they collected a dozen or so different books and studied them.

Here, they soon discovered, was the neglected child of the industry. The current instruction book belonged back in the days when owners stored their cars away on blocks for the winter. Very definitely it was for the old-fashioned owner who thought he could be his own mechanic.

One of the men in the little group at Pontiac expressed this thought: "Seems to me that we ought to bring our instruction book as up-to-date as our new car. Let's give some of the more important information that the mechanically-minded owner wants to know, but let's think more of the owner who isn't the least bit interested in wiring diagrams and how to grind valves. Let's tell him something about the art of driving and the things that will add to his happiness and satisfaction as a Pontiac owner."

Sets New Pace

The suggestion clicked. Starting at scratch, Pontiac pioneered and produced a handbook that sets an entirely new pace in such manuals. It even has a new name —"The Automobile User's Guide." It appeals to the average new model owner instead of to the mechanic. It takes up the use of the car from the owner's point of view, shows him how to get the greatest pleasure out of driving, and instructs him pleasantly in the few things which he should know about his car. In other words, it is built around the "do-idea" rather than the "don't-idea." It accomplishes its purpose refreshingly, both in text and in illustration.

In addition to a fresh slant on the proper way of breaking in a car, the book discusses each subject as the art of driving, the purpose of the various controls, starting the engine, the art of gear shifting, the art of steering, city parking, night driving, winter driving, highway hints, cross country tours, how to save gasoline, getting the most out of tires, "housekeeping" the car, prolonging the life of the car and maintenance schedule. And for those mechanically-minded, there is a very lively section at the back of the book that tells the story of the car, from the engine to the turret-top body.

Resells the Owner

Besides doing a good job of instructing in a human sort of a way, the Pontiac owner's handbook is a creditable piece of sales literature. It resells the owner on his new car after he has taken possession of it, and, departing from the usual advertising approach, builds up a convincing story of performance, safety and economy that is intended to increase the owner's enthusiasm for Pontiac.

Pontiac dealers are enthusiastic in their praise of the User's Guide. As far as Pontiac is concerned, the old-fashioned tradition of the dry-as-dust instruction book seems to have definitely gone to its final resting place.

Pontiac's Biggest Step Made During 1935, Says Klingler

Reviewing the progress of Pontiac Motor Co. in all of its phases, H. H. Klingler, president and general manager, looks upon 1935 as the year of greatest accomplishment to date in the history of the company, and points to a continuation on the same upward trend throughout 1936.

"Pontiac has made its greatest step forward in 1935," said Klingler. "Every department of the business has been put in order. All operations have been smoothed out. Last year showed the largest increase in sales and production of any single year since Pontiac Motor Co. was formed 10 years ago.

Plants Efficient

"Our plants have been put on an efficient basis to handle any production demand that may be expected. We made expenditures that ran into many millions of dollars in 1934 and 1935 for retooling and new equipment. This fall we have re-opened our foundry that has been closed since 1932.

"We have been building the most solid and substantial dealer organizations we have ever had, with an increasing number of exclusive dealers.

"Our service organization is rendering valuable assistance to dealers with the result that Pontiac owners are universally satisfied with the fine handling they receive when their cars require attention. Parts and accessories are being offered to dealers at prices which make possible a maximum profit with the result that this phase of their business has increased by leaps and bounds.

Used Cars Important

"Realizing the importance of the used car to the success of this business, valuable assistance and advice has been rendered. This, together with the ability which every dealer possesses of trading advantageously because of the natural value offered in the new Pontiac cars, has carried them through recent used car 'situation' in better shape, as a whole, than most dealer organizations.

"All of these factors in our business have contributed to the most important achievement in the company's experience, namely, the doubling of both sales and production of Pontiac automobiles in 1935 over 1934."

Retail sales in the United States increased from 72,877 units in 1934 to 147,044 in the year just ended, which is a gain of 101.8 per cent. Hundreds of dealers in every part of the country report that their Pontiac business has doubled and tripled.

Pontiac has established records for production and sales in 1935 that have been exceeded only once since its original announcement 10 years ago. Even those figures could have been surpassed, Klingler is certain, if the company had had the increased manufacturing it facilities possesses today. All through the spring months last year dealers were forced to take cancellations of orders or else could not accept them at all because of their inability to make deliveries.

Plant Capacity Boosted

"Now that the plant capacity has been increased to take care of deliveries promptly this spring and our dealer organization improved materially together with the steadily increasing public acceptance for the product," said Klingler, "I believe that Pontiac sales in 1936 will equal or pass the 225,000 point, which will mean an all-time mark.

"Already the company has gotten away to a flying start for this year with record breaking sales of 1936 cars during the last three months of 1935 as a momentum getter.

"The figures given thus far cover retail sales only. Factory production has made an equally good showing. Total world production of Pontiac cars in 1935 was 119.6 per cent above the year before with a total of 181,168 cars compared with 82,496 for 1934.

"Domestic production jumped from 77,218 cars in 1934 to 165,218 in 1935, or an increase of 88,118 units. Pontiac export business showed a gain of 233.6 per cent with 9,932 cars last year and 2,977 the year before. Canadian business forged ahead 156.4 per cent with a total of 5,900 cars turned out in 1935.

"Pontiac has taken its biggest step forward with marked improvement in every department of the business."

Silver in Bearings

Among the engineering innovations of the past season is the use of pure silver in the bearing alloys used in the Pontiac sixes and eights—a development exclusive with this make of car in the passenger car field. This method of manufacture, it is claimed, makes the bearings three times as resistent to wear as the former type of metal used, and raises the melting point 50 per cent higher than that of conventional babbitt. More than 2 per cent of the metal in the bearings is silver.

Rose From Bottom

A. W. L. Gilpin, vice-president and general sales manager of the Pontiac Motor Co., has covered the entire range of automobile sales positions, starting as a retail salesman and working up to head the national sales department in his 32 years in the industry.

A Prophecy Fulfilled . .

TEN years ago a new car was announced with this statement, "Pontiac is destined quickly to achieve a position of outstanding importance."

That prophecy has been fulfilled.

The Divisions of Borg-Warner hail Pontiac for its success — and warmly congratulate the men of Pontiac for the manner in which that success was achieved.

We are proud indeed to have worked with Pontiac throughout this period. We know the exacting care that goes into the building of every car bearing the Pontiac name-plate. We know well the constant effort to "do it better" in the experimental laboratories, along the production line, in the purchasing department . . . . a striving for improvement that could only result in the position Pontiac now holds.

So we of Borg-Warner extend congratulations. We like to believe that Pontiac's success is, in a way, an excellent recommendation of the Borg-Warner parts that have been honored by inclusion in Pontiac design.

DIVISIONS OF BORG-WARNER CORPORATION

The Borg & Beck Company Division • Borg-Warner International Corp. • Borg Warner Service Parts Company • Detroit Gear & Machine Division • Detroit Vapor Stove Division • Ingersoll Steel & Disc Company Division • Long Mfg. Co. Division • Long Mfg. Co., Ltd. • Marvel Carburetor Company • Mechanics Universal Joint Company Division • Morse Chain Company • Morse Chain Company, Ltd. • Norge Division • Rockford Drilling Machine Company Division • Warner Gear Company Division • Wheeler-Schebler Carburetor Co.

Advancing America . . . ON THE HIGHWAY . . . IN INDUSTRY . . . IN THE HOME

BORG-WARNER CORPORATION

310 South Michigan Avenue, Chicago, Illinois

'Forgotten Man' is Remembered at Pontiac Plant

One Fourth of Workers Are Over 40 Years Old

Men over 40 years of age have a definite place in the automobile industry, as a glance at the employment records of the Pontiac Motor Co. quickly demonstrates.

Of the total wage earning force now employed in the Pontiac plant, about 2,000 or more than 25 per cent are more than 40 years old. Several men are over 70. Excluding executives, the average age of employes is better than 34 years old.

Pontiac is unique and fortunate in its employment situation. More than 88.6 per cent of all plant workers are native born and all of the remaining 11.4 per cent born in foreign lands are now full fledged American citizens.

Plant visitors frequently remark on the high percentage of Anglo-Saxon names seen on the time clock cards—a circumstance due to the policy of the company in drawing workmen largely from the city of Pontiac and Oakland County where the plant is centered.

Third Own Homes

More than 80 per cent of the workmen are permanent residents of the county and about 30 per cent of them own their own homes, according to I. H. Long, personnel director, who knows practically every one of the 5,500 Pontiac plant workers by their first names.

"Many of these men went to work for us as soon as they finished high school," Long says. "We broke them in and they are still with us. In other cases, when employe who was head of a family died, we filled his place with his son. Where large families require the support of more than one member, we hire both father and son.

"During the years of rapid growth in the automobile industry, many people came to us from other occupations and from farms in the county. We took them on and they form the backbone of our force today. Those people were already settlers here and practically all of them are native born.

"By recruiting our labor from this class we secure substantial, solid citizens. We are not bothered by 'floaters.' Our men are returned to the payrolls year after year until today the average length of time they have served with us is more than seven years. Over 30 per cent of them have been with us continuously for five years and 10 per cent for a longer period of time, ranging as high as 30 years.

Criticism Unjustified

'It is interesting to observe that when we built the 1,000,000th Pontiac last April there were more than 300 employes on the payrolls who were also working here when the first Pontiac was introduced in January, 1926."

Analyzing the employment situation at Pontiac, Long declared that the automobile industry is often unfairly criticized for not furnishing steady employment to its workmen.

"A great deal of this criticism has resulted from a misunderstanding of the so-called shut-down periods which occur every year when manufacturers are getting ready for new models," he said.

"This misapprehension spreads quickly when the plants shut down for re-tooling and preparation for new models," he points out. "The public impression is that everyone is out of work. As a matter of fact there are probably from 30 per cent to 40 per cent of the men on the payroll during the peak of production who work right through in the in-between layoff periods.

"When Pontiac was closed last August there were more than 2,000 men working in the factory. That was approximately 40 per cent of the number of employes carried during the busiest months of this year. Last year, when business and employment were not nearly so good as they have been this year, our total number of employes never dropped below the 1,300 mark.

Half Work 11 Months

"This means that some 40 per cent of our maximum factory payroll will have practically 12 months of work in 1935, while over 50 per cent of them will work from 10 to 11 months, a condition quite contrary to the general impression that the majority of automotive workers are employed only four to six months a year.

"During the shut-down period in August when there was no production of Pontiac cars, these 2,000 men were busy working, testing and setting dies; cleaning up the plant from the eight months of top-speed production which had just ended; re-setting machinery and placing new machinery, and moving in stocks of materials and partly finished parts such as rough forgings and castings. All of this work was necessary before production could be resumed.

"The rearranging and cleaning up of a plant is something that has to be done every year. It is like the dry-docking of a great ocean liner or the roundhouse cleaning up that locomotives get every so often.

"Even when Pontiac was in the in-between layoff season it continued to be the largest employer of labor in the city of Pontiac with more than 2,000 workmen getting things ready for the 1936 season."

Sells Pontiac By Short Wave Radio

Utilizing the short wave amateur radio set for the sale of a car is reported by W. B. Wadsworth, salesman for the B. & P. Sales Co., New Bern, N. C., Pontiac dealers. Wadsworth, through a local station, was able to talk with the prospect, located at Cape Lookout, N. C., and by this contact sold a de luxe two-door sedan.

Perpetuates Name

The only car to perpetuate the name of the American aborigine is Pontiac—named for the ferocious old Chief Pontiac, who was the Mussolini of the Ottawa tribe and who used to roam the lake spangled county with its seat of government in the present city of Pontiac, Mich., until his assassination 178 years ago.

U. S. in Five Regions

The United States is divided, on the sales map of the Pontiac Motor Co., into five great regions centered at New York, Chicago, Pontiac, Memphis and Oakland, Calif., each under a resident manager and staff, and 24 zones, also managed locally, in as many key cities in the country.

COLOR . . .

is featured this year by all car manufacturers as a distinctive sales point—color enhances beauty of line and enables greater expression of individuality by the buyer.

DUPONT

Dupont DUCO has been the finish of the "beautiful Pontiac" for ten years.

Dupont DUCO is available in all standard Pontiac colors for retouching and complete refinish.

The E. I. duPont de Nemours and Company

Millions Spent Annually for Pontiac Materials

McLaughlin, Buying Head, Maintains Staff of Experts

Building a motor car is a comparatively easy job but making a car that is so inherently good that it can be advertised as a 100,000-mile car, because tests have shown that it will stand the wear and tear and abuse for that mileage is not only a combination of outstanding engineering and unequalled manufacturing facilities but unusual carefulness in buying the materials for its production.

Pontiac spends millions of dollars annually for the materials that go to make up the car. It is a complex job for the buying may include plain, common, ordinary pins and tacks or tons of steel, iron, copper, brass, nuts, bolts, rivets, paint, rubber and thousands of other items that go to make over 3,000 parts in a car. Each must be carefully chosen. Each must pass the inspectors' tests and each must be of such high quality that individually and collectively they will contribute to the 100,000-mile life of a Pontiac.

Veteran Shopper

On F. J. McLaughlin, a veteran in shopping and buying, rests the responsibility of buying just the right things for the car. He doesn't do it all, however, for no one man can talk prices and quality to the 1,400 salesmen who visit the Pontiac plant every year to display their wares. Each has his story to tell. Each wants to sell what he thinks is the best. To see each one would take too much time so Mac has several assistants, seven in all, to help out. His staff consists of C. F. Gorden, assistant productive, accessories and finished parts; M. F. Rummel, steel, stampings and forgings; C. F. Shoup, foundry materials; C. G. Ogden, screw machine parts and standard parts; L. Redford jr., assistant non-productive, printing and machine tools; M. S. S. Danton, maintenance; H. V. Phipps, stationery and miscellaneous supplies, and C. F. Korneffel, salvage and surplus machinery sales.

Each man has his section and each knows where to buy the needed parts or materials and sees that what they buy is exactly what the engineering department under Anibal ordered. The materials, when reaching the factory, must be exactly like the samples, which go through exacting tests before they are incorporated in a Pontiac.

Buyers Specialize

Buying the needed parts and materials for the 100,000-mile Pontiacs is no easy job. Each of Mac's experts must specialize in the task assigned him. He has to call on his wide knowledge of where the parts or materials can be obtained. He talks with the parts or materials purveyors—salesmen—compares prices, checks the reputation of the makers, their ability to deliver the parts as needed, arranges for tests of samples and then with complete information on all conditions regarding the quality of the materials, makes his choice. In the 100,000-mile Pontiac, price is not the determining factor. The main consideration is reliability.

McLaughlin's men have just one common ground. In their buying for every department, from pens and ink and pencils to the huge presses that stamp out Pontiac's fenders and sheet metal work, the purchasing department's slogan is quality and value. Without that factor Pontiac automobiles would never give the buyer the uninterrupted service which the cars have given for years.

But the buying isn't just confined to the parts and the materials for the cars. The materials must be fabricated. To do this job there is the matter of tools, machinery, testing equipment and hundreds of items which are needed for fabricating the materials into the final units in the car. Such items as drills are bought by the hundreds of thousands during the year. There are over 600 sizes of drills used. Some cost only a few cents each and some run into several dollars each. The job is to buy the drills that will last the longest. There are the lathe tools and the assembly tools to be considered as well. Then there are lubricating oils, gasoline, enamels and a list of items to which there seems to be no end. Each buyer must know just where to get the right type of supplies and at prices in keeping with the quality specified.

A Wide Variety

When one thinks of the purchasing department, one naturally surmises that they buy things for the car production only. But there is the lumber to be bought for export shipments, and with that there are nails, bolts and screws, steel binding strips and such items as burlap and wadding for protection. There is the long list of items that go for good housekeeping in the plants and the offices, such as soap, mops, brushes, brooms, towels, paper drinking cups, etc. Then new desks, chairs, carpets, window shades, lamp bulbs and for the emergency medicine cabinets, drugs, tape, bandage materials and even pills. Repairs to the buildings such as glass and steel sash, nails, etc., are bought through the department and not so long ago several power lawn mowers were ordered to take care of the lawns around the plants.

McLaughlin's men are great readers of catalogues of the machine supply houses and magazines covering various trades and industries. They search out items which may save money for the company in making cars. Their work is now a science and with it they combine a knowledge of the world's markets, shipping costs, a daily knowledge of weather conditions which may influence delivery and an ever-ready hand on the telephone to see that the parts, materials and other items ordered will be on hand when needed. With his crew of men, McLaughlin's department is the key to the entire production of the cars. Their alertness for quality goes a long way to make Pontiac the 100,000-mile car.

Incorporated

The organization now known as the Pontiac Motor Co. was incorporated Aug. 28, 1907.

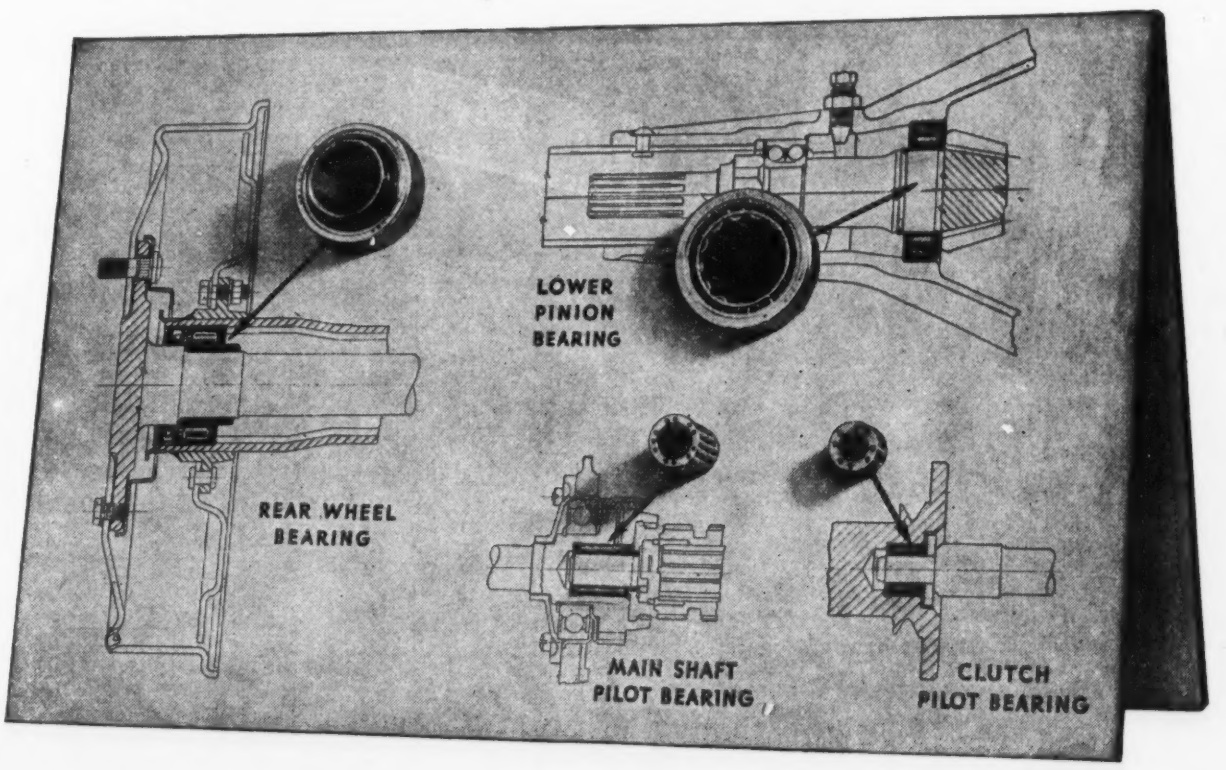
Professional Coupe

An innovation of the 1935 automotive season was the introduction, by Pontiac, of the "Doctor's Special"—a coupe with special equipment fitting the needs of a professional man.

More Hyatts . . .
Better Construction

Car builders know that more Hyatts mean more satisfactory performance, and that every vital chassis point guarded by Hyatts is free from bearing wear and care. Because Hyatts are so correct in design—because they are made with the care and precision of a fine watch—because of their sound application engineering—Hyatt Quiet Roller Bearings play a big part in that excellence of unseen car construction which buyers accept with utmost confidence. Hyatt Roller Bearing Company, Newark, Detroit, Chicago, Pittsburgh, San Francisco.

From the first Pontiac—as in its predecessor—Hyatt Quiet Roller Bearings have served well and long. Years of pleasant and resultful association of which we are justly proud. Chart below shows the principal Hyatt applications in the 1936 Pontiac.



H Y A T T
QUIET ROLLER BEARINGS

Hum of Wheels Replaces Thump of Tom-Toms

Vast Pontiac Plant Spreads Over Historic Indian Site

On a historic site at Pontiac, Mich., where Chief Pontiac once reigned and plotted as the "Satan of a Forest Paradise," there stand today the gigantic factory buildings of the Pontiac Motor Co. So immense is this factory group that one building alone with a roof area of 100 acres could have sheltered the encampments of all the four Indian tribes in Pontiac's confederation against the white men.

Here Chief Pontiac made his plans to massacre the garrison at Fort Detroit, only to be foiled by an Indian maiden who was in love with the commandant. During the subsequent unsuccessful five-month siege of Detroit, Chief Pontiac is said to have "commuted" frequently between the scene of hostilities and his headquarters village. Incidentally, the trail he followed between the two points is today the precise route of Wider Woodward, a 200-foot super-highway.

Gemmed With Lakes

The former site of the chieftain's village, located amid a rolling, lake-spangled country 25 miles from Detroit, now represents an increasingly important sector of America's industrial map. For the years have wrought marvelous changes in Chief Pontiac's "home town." The monotonous thump of the tom-toms summoning Pontiac's painted warriors is long stilled and in its place has arisen the hum of industry—a ceaseless drone from thousands of machines which every few seconds send forth a completed motor car.

Buildings having floor space of over 3,000,000 square feet have been built during the last two years. And every building is equipped with the latest and most modern of precision machinery. So spacious are the structures, that one may take a Pontiac car from one of the assembly lines and drive it without difficulty through the wide aisles. And so well lighted are the buildings that fine print may be read in the most remote corner. Truly, these immense piles of brick, steel and concrete, would have stricken awe into the savage heart of Chief Pontiac.

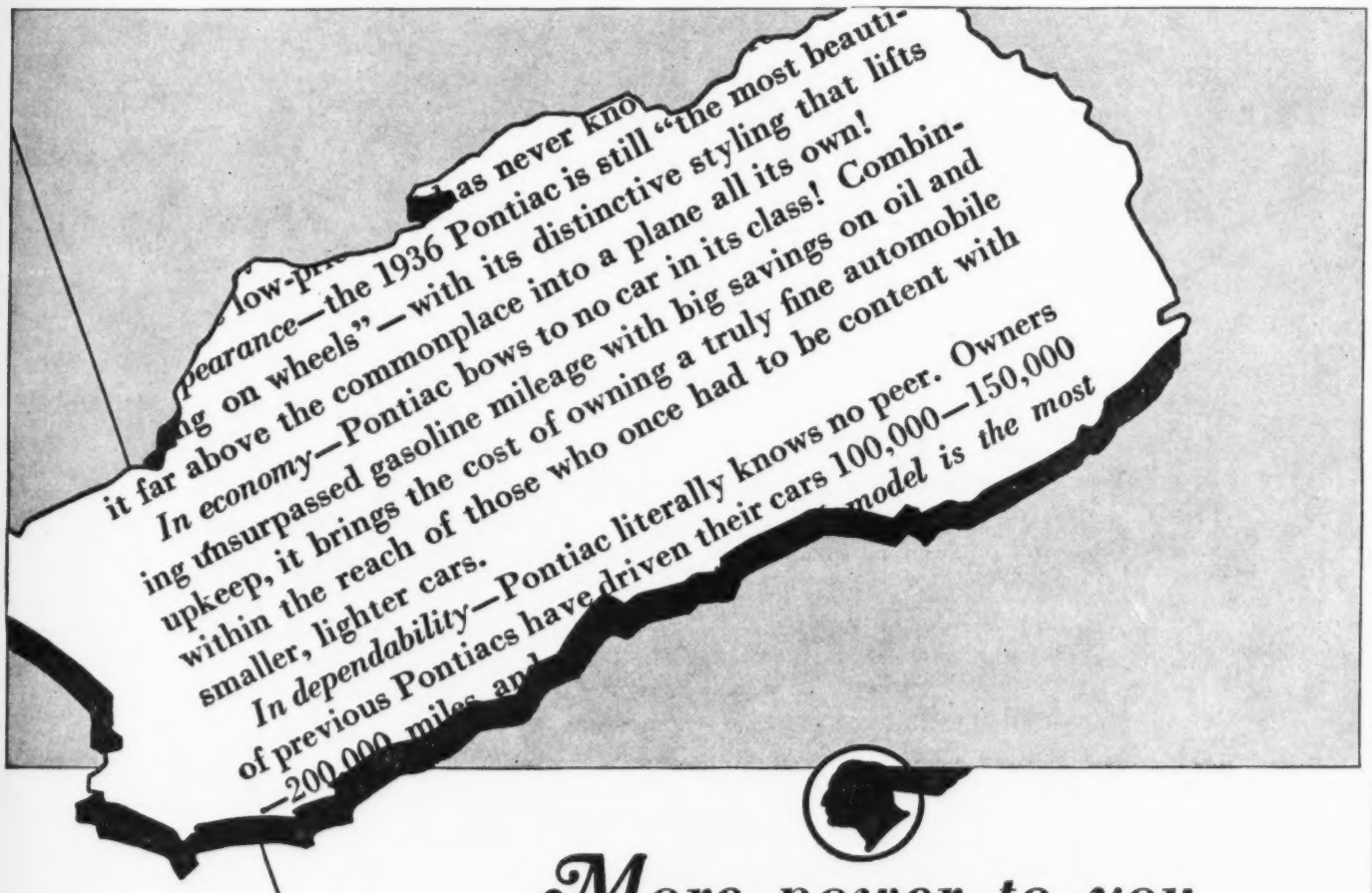
The erection of this factory group, rising rapidly and impressively, tells an epic story of industrial progress. For many years the former Oakland Motor Car Co. built the Oakland six, gradually increasing production, but still finding adequate manufacturing accommodations in the original Oakland factory. Then in 1926 the Pontiac six was introduced. It also was built in the Oakland factory. But demand for the Pontiac six mounted so abruptly that steps were hurriedly taken to provide a separate plant for the new car. A large tract was purchased on the outskirts of the city. Construction crews worked frantically day and night. As a result, 1927 saw the huge Pontiac six factory unit thrown into production. It represented the largest single industrial contract awarded in the entire United States during the preceding year, and was the largest automotive project ever completed at one time. The building opened with two complete assembly lines. A third line was added early in 1928.

But meanwhile, with the introduction of the first All-American Six models in August of 1927, the demand for that car grew so insistent that the expansion of Oakland factory facilities also became imperative. A monster Oakland assembly plant and shipping building was erected as an extension of the Pontiac structure.

Now, with the remarkable growth in popularity of the Pontiac line, all of the plant space formerly used by Oakland is devoted to the manufacture of Pontiac sixes and eights.

The old Oakland plant, formerly used to build axles, differential gears and chassis parts, was torn down in 1934.

The transfer of Oakland six assembly operations to the new plant was the occasion for an immense public housewarming at which the company entertained more than 60,000 visitors in three days, revealing a unique and highly successful application of modern factory production and organization methods to the task of providing food and amusement for the throngs of guests.


...as never kno...
...pearance—the 1936 Pontiac is still "the most beauti-
...g on wheels"—with its distinctive styling that lifts
it far above the commonplace into a plane all its own!
In economy—Pontiac bows to no car in its class! Combin-
ing unsurpassed gasoline mileage with big savings on oil and
upkeep, it brings the cost of owning a truly fine automobile
within the reach of those who once had to be content with
smaller, lighter cars.
In dependability—Pontiac literally knows no peer. Owners
of previous Pontiacs have driven their cars 100,000—150,000
—200,000 miles and ... model is the most

This quotation is from a recent Pontiac advertisement

More power to you

PONTIAC—

You're doing a great job and we're proud to have a small share in your phenomenal progress.

Selection of the Carter Climatic Control Carbureter for both the six and the eight assures all Pontiac owners quick, dependable, automatic starting and immediate warm motor performance no matter how low the temperature.

CARBURETER

CARTER CARBURETOR CORPORATION
2834-56 NORTH SPRING AVE. • ST. LOUIS, MO.

$100 Bet Teaches Zone Manager A Sales Lesson

A $100 bet that the Savage-Haldeman Co., Los Angeles, couldn't deliver 100 new Pontiacs in December has taught C. G. Riley, zone manager, to be more careful of his money hereafter. What happened is told in this plaintive report from Riley:

"On Dec. 2 we had a dinner for the dealers and salesmen of Los Angeles in celebration of the successful outcome of the Los Angeles automobile show. At this dinner Savage and I discussed the possibilities of Savage-Haldeman Co. delivering 100 new cars during December. In an unguarded moment I offered to bet Savage $100 that he could not deliver the 100 new cars. He reluctantly took me up.

"The result of their December drive was that they delivered 102 new cars and 108 used cars. I presented Savage my check for $100 in the presence of his sales organization. Later in the day Savage admitted that if it had not been for the $100 wager that they probably would have delivered not over 85 new cars; so it actually turned out a good bet for me even though I lost.

"Among the Haldeman Co. salesmen are J. L. Scoonover, B. J. Sanchez and Edward Grupp. All three of these men have made the Thousand Point Club since they came to work for the company.

"Scoonover, who formerly was with Community Motors of Chicago, has delivered 38 new and 28 used cars since Aug. 25. Sanchez has delivered 55 new and 46 used cars since Aug. 25. This is an average of one car per day for the 101 days that he has been with the company. Grupp started Oct. 15 and up to Dec. 31 delivered 33 new and 39 used cars, or a total of 72 units in the 78 days that he has been with the company.

"This story is just a sample of the enthusiasm and aggressiveness shown by the Savage-Haldeman organization."

Pontiac First to Adopt Solid Steel Turret Top

Smooth Flowing Roof Lines Featured on 1935 Model

Leader of the van as the first General Motors car to adopt the solid steel "turret top" body by Fisher, Pontiac, before the introduction of the 1936 models, found itself in an enviable position.

Feeling that the new type of construction, featuring the one-piece seamless steel roof, was still far ahead of competition, officials of the passenger car division and those of Fisher Body were agreed that Pontiac should keep faith with its owners—those who purchased cars during the short model year of 1935.

As a consequence, the smooth, flowing lines of the "turret top" bodies that grace the 1936 Pontiac series de luxe six and eight, as well as the six-cylinder thrift model, were changed but little. Instead, engineers directed their efforts toward the provision of even greater safety and comfort.

Safety Glass Added

Saftey glass was added as standard equipment in the de luxe models, a feature for the protection of the motor car buyer that is indicative of the increased value found throughout the new Pontiac bodies, according to Edward F. Fisher, general manager of General Motors' body-building division.

Both sixes now have the split-back front seat in the two-door models, Fisher points out. The seat cushion is of the full-width sedan type, and three persons may occupy it comfortably, making these cars actually six-passenger vehicles instead of five. At the same time, with the tilting back, the rear seat passengers may enter and leave the car without disturbing the other occupants.

Depth of the seats from front to back has been increased. The front one is one and three-quarters inches wider, the rear two and one-quarter inches. The cushions likewise are deeper from top to bottom, extending down to the floor of the car, which not only adds to their resilience but materially increases the attractiveness of the interior as a whole. Springs, too, are of a new and improved type.

Several selections of upholstery materials are available. Mohair velvet in two colors, or pin stripe broadcloth, may be had in the eight-cylinder models, while the choice of fabrics in the de luxe six includes a woolen material in taupe, mohair of the same shade and a modified tweed. Either taupe mohair, or a brown-patterned broadcloth, may be obtained in the less expensive thrift models.

Trunks Feature Locks

The built-in trunks of the touring sedans are fitted with a single lock within the barrel of the rotatable locking handle, operating a double bolt that securely fastens the lid at each side. Like those in the door handles, the lock is equipped with an automatic keyhole cover to keep out dirt and moisture, and is featured by the fact that the key cannot be removed unless the lid is locked.

The front doors of all models are equipped with the new U-shaped sponge rubber arm rests that serve also as door handles, making it possible to mount the remote control handle, the window regulator and the crank operating the ventipane of the exclusive Fisher no-draft ventilation system forward where they are out of the way a feature that appeals particularly to the parents of small children.

All front seats are adjustable over a four-inch range through the use of an easily reached trigger control at the left side. The recessed foot rest, ash receivers in each of the tonneau arm rests in the two-door sedans of the de luxe series and at the back of the front seat in the four-door type, inside sun visors except in the thrift models, and the new cupboard lock on the glove compartment are a few other features of the 1936 Pontiac bodies.

Top Principles

The basic principles governing the "turret top" type of construction, an adaptation of those employed in the design of the battleship gun turret to motor car use, remain much the same, although even here many refinements are in evidence.

The steel front end assembly has been strengthened by the addition of a secondary brace to supplement the airship-girder type, a change necessitated by the fact that the doors are now hinged at the front of the new models.

An asphalt impregnated deadener, said to be even more efficient as insulation against heat, cold and sound than the type of material used in the 1935 "turret top" bodies, covers the inside of the steel roof and the metal side walls. The latter, tested under actual operating conditions beneath the broiling Key West sun, showed that cars having the "turret top" body are less affected by temperature changes than those employing the conventional type of construction.

A layer of heavy jute insulates the steel flooring, while a felt and fibre-board deadener applied to the dash keeps out engine noise and heat. Extensive use also is made of rubber to prevent the seepage of dust into the luggage compartment and elsewhere.

Salesman Finds Useful Aid in Unique Volume

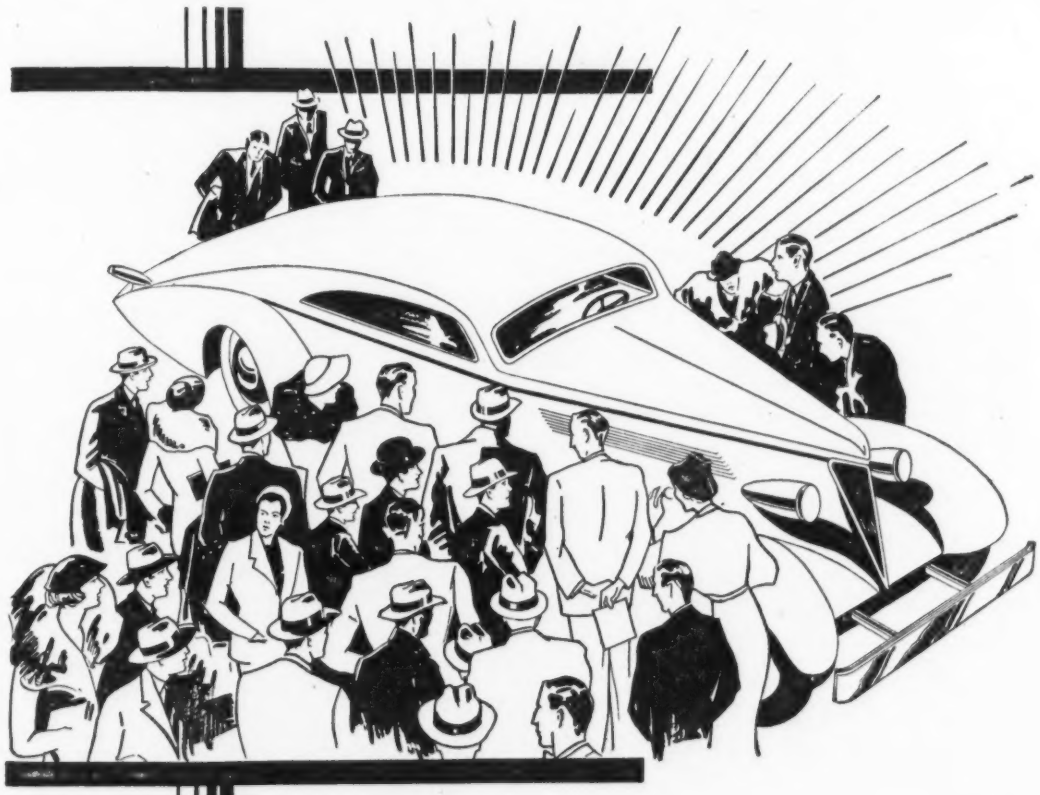
Goss-Walters Motor Co., Pontiac dealers in Anderson, Ind., recently had demonstrated to them in a very unusual manner the effectiveness of the Pontiac Salesman's Presentation Book as a "silent salesman."

A Goss-Walters' salesman contacted a prospect at his office leaving the Presentation Book for him to look over at his convenience.

Another man in the same office had decided to buy a car of another make. Seeing the Pontiac Presentation Book and being "new car minded" at the time, he asked to look at it.

After being told Pontiac's story by the very descriptive pictures and hard-hitting copy that make up this year's book—this man of his own accord went to the Goss-Walters' salesroom—was given a 1936 Pontiac to drive—and in a very short time came back and bought it.

Needless to say, the Goss-Walters Motor Co. is thoroughly "sold" on the 1936 Presentation Book as an important and profitable piece of selling equipment — and are therefore using it more than ever before.



ISN'T IT BEAUTIFUL!

Congratulations to **PONTIAC** *on their* **10th Anniversary**

Wherever modern automobiles are seen . . . at shows . . . in dealer exhibits . . . on the streets—the universal expression is, "Isn't it Beautiful!"

Bright, brilliant trim . . . stainless tarnish-proof mouldings . . . lustrous lamps . . . permanently beautiful bumpers . . . glistening hub caps . . . all of more than skin-deep beauty—thanks to ALLEGHENY Metal, the time-tested Stainless Steel.

Yes—beauty does attract attention and often is the point upon which a buying decision hinges. Smart designers are making sure that the beauty they put into their cars is permanent by insisting upon

ALLEGHENY METAL
The time-tested stainless steel

ALLEGHENY STEEL COMPANY
BRACKENRIDGE, PENNSYLVANIA
Sales Offices and Warehouse Stocks in the Principal Cities

Allegheny METAL

Keep Owners Satisfied is Pontiac Service Aim

Efficient Parts System Gives One-Day Service

Keeping car owners continually satisfied depends largely on the ability of dealers to render good service, according to O. A. Lamareux, parts and accessories manager for the Pontiac Motor Co. Good service calls for quick availability of genuine parts. General Motors' parts warehousing system provides over night parts service to 96 per cent of the Pontiac dealers. Each of these parts warehouses contains Pontiac parts in wide enough variety to service over 90 per cent of the dealers' parts requirements.

"Seven of the 40 General Motors' parts warehouses have been established at strategic points and are known as master warehouses," he continues. "Here, the slower moving and older model parts are maintained. These seven warehouses are connected by teletype service with the other 33 fast moving parts warehouses so that a dealer's order for a slow moving part is teletyped that same hour to a master warehouse for shipment that same day.

"Only the slowest moving and practically obsolete parts are stocked at the factory for servicing dealers on older model cars.

"Through an efficient system of remote control, parts inventories in both the master and fast moving warehouses are maintained to guard against shortages and back orders, resulting from a peak demand on certain parts. During certain periods of the year this inventory is increased to cover the demand for seasonable items so that the dealers' parts service is protected at all times.

Remote Control System

"In order to maintain a balanced parts inventory to serve their shops, their wholesale trade and retail customers, our dealers operate on a balanced parts stock plan," Lamoreux declares

"Fast moving parts, particularly those that might tie up a customer's car, are controlled through the dealers' monthly parts order pad. Each dealer maintains a series of steel bins according to the size of his operation, in which the parts are arranged in group number sequence. That is, all rear axle, transmission, motor, clutch, etc., parts are grouped in proper sequence in these bins. The monthly parts order pad lists the same parts in the same sequence as they are contained in the steel bins.

Orders Intelligently

"This enables the partsman quickly to make a physical inventory each month of all parts in the bins. He computes his sales of each part for the past 30 days on which he bases an intelligent order. Dealers submit their monthly parts order on the same date each month to permit fast and even flow of parts distribution from the warehouses

"In this way dealers maintain the right selection of parts in the right quantities, and guard against the accumulation of obsolete parts which occurs when a dealer's partsman 'guesses' how many and what parts to order.

"Through its net parts pricing program, Pontiac gives dealers as high as 52 per cent discount off list on fast moving parts, compared with the 35 per cent to 40 per cent of many companies. For example, our dealers enjoy 52 per cent discount on brake linings, 50 per cent on valve springs, piston pins and rings, water pump packing, fan belts, gaskets, ignition cables, etc. At the same time they are not penalized by an extremely low discount off list on slower moving items such as front axles, frame assemblies, etc.

"Care is used to maintain competitive list prices, which after all are the prices the customer pays for parts. List prices are kept in line with the lowest priced cars, again proving that Pontiac cars are economical to operate and maintain.

Dealers' Profits Protected

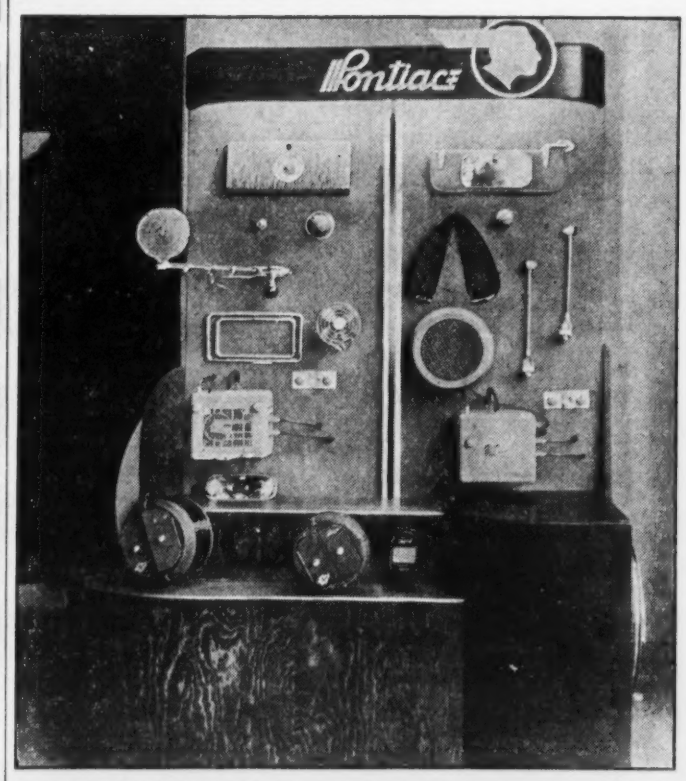
"Accessories are merchandised by our dealers in two groups. First is the standard accessory group which contains bumpers, bumper guards, spare tire and tube, spring covers and right-hand windshield wiper.

"Here again dealers' profits are protected. Many competitive car manufacturers extend only the car discount on this group. However, we extend over 30 per cent discount on this group and at the same time have kept the list price lower in most cases than competition. Safety glass is priced as part of the car on the De Luxe six and eight models and is optional at cost price on the Master six.

"Dealers can order accessories installed or shipped with their cars from the factory. For example, the Group D accessories include dual tail lights, dual sun visors, and dual horns which are installed on dealer's order on cars shipped. Here again, instead of extending car discount on this group, dealers make over 40 per cent gross profit.

"Other accessory items contained in attractive groups such as Group Y, include the electric clock, cigar lighter, ash receiver, visor vanity mirror, and gear shift ball. They may be purchased as a group with the car on which the dealer makes considerably more than 40 per cent gross profit."

PYRAMIDAL LINES feature this attractive accessory and parts display which has been worked out for use in the up-to-date dealer's service department or showroom. It provides ample space for merchandise and allows the customer to see and handle the parts he is about to buy.



THE CUSTOMER, who after all, is the most important factor in every merchandising transaction, is given a break through the use of this accessory and parts display. People like to see what they are buying and even like to handle the goods, as successful merchandisers will tell you.

HARRISON

RADIATORS • RADIATORS • RADIATORS

CAR HEATERS • CAR HEATERS

THERMOSTATS • THERMOSTATS

OIL TEMPERATURE REGULATORS • OIL TEMPERATURE REGULATORS

RADIATORS • RADIATORS • RADIATORS

CAR HEATERS • CAR HEATERS

THERMOSTATS • THERMOSTATS

Complimenting
PONTIAC
on its
Tenth Anniversary

Harrison Radiators have been standard equipment on Pontiac cars since their introduction in 1926.

HARRISON RADIATOR CORPORATION
LOCKPORT, NEW YORK

Pontiac, Fisher Body Both Celebrate 10th Birthday

Every Pontiac Ever Built Has Borne a Fisher Body

Linked inseparably in the mind of the public today are two great trade-marks — the Pontiac Indian chieftain and the Fisher Napoleonic coach — for every Pontiac chassis that has ever been produced has borne a body with the Fisher nameplate.

Pontiac's 10th anniversary is likewise the 10th anniversary of Fisher Body as a division of General Motors. Though the body-building organization was started by the Fisher brothers in 1908, it was not until 1926, the same year the Pontiac Motor Co. came into being, that it became a part of the General Motors' family.

The history of the closed car, with the introduction of the solid steel "turret top" body on the Pontiac line in December, 1934, forming the crowning achievement, is in reality the history of Fisher Body, and is one of the most romantic stories in the entire automotive industry.

Six Fisher Brothers

The six Fisher brothers—Frederick J., Charles T., William A., Lawrence P., Edward F., and Alfred J.—came from a family of artisans. Their father and his father before him were blacksmiths and carriage makers.

Fred, the eldest, was the first to leave the Norwalk, O., home of the Fishers after learning the trade at his father's bench. He was soon followed by Charles, the second oldest. They went first to Detroit, where the motor industry was getting its start, then east to Boston and finally back to Detroit, gaining experience as they went along.

In 1908, they decided to go into the business of making automobile bodies for themselves, and organized the original Fisher Body Co. with a capitalization of $50,000, much of it borrowed.

Closed Jobs Novelty

The closed car at that time was little more than an experiment. It held no appeal for the vast volume producing market, because the building cost placed it far beyond reach of the man in moderate circumstances.

It was the belief of the Fishers, however, that closed bodies could be produced in volume with the same efficiency that characterized chassis production. They felt, too, that the closed car was the only thing that would make year-round driving practical.

Experience had shown that the bodies of horse-drawn vehicles could not be adapted to motor cars. Carriages were not required to stand the stress and strain to which an automobile body is subjected. To overcome these destructive forces, it was discovered that a closed body must be designed to withstand the loads imposed upon it just as one would design a bridge. With these things in mind, the Fishers tackled the problem.

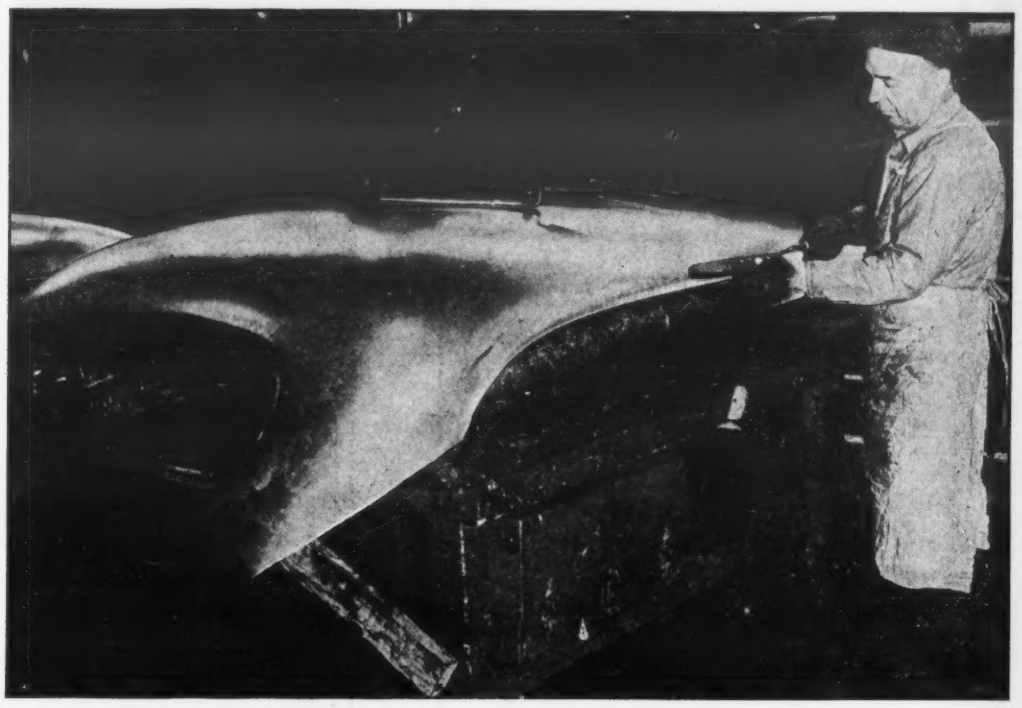
The first large order received, believed to be the largest ever placed up to that time, was from Cadillac in 1910 for 150 closed bodies, which immediately created a demand on the part of the public for this type of vehicle. The Fisher Body Co. in the same year became the Fisher Closed Body Co., and in 1916, the Fisher Body Corp.

As time went on, the younger brothers joined the company one by one, each working his way up into an executive position after demonstrating his ability.

With the development of the automobile, the business of the Fishers grew by leaps and bounds. The 1919 production of the firm was 135,000 units; 1924, 575,000, and 1925, 1,300,000.

In 1926, the Fisher Body Corp. became a division of General Motors, and is now the largest manufacturer of automobile bodies in the world, owning outright many sources of supply and purchasing other materials in such great

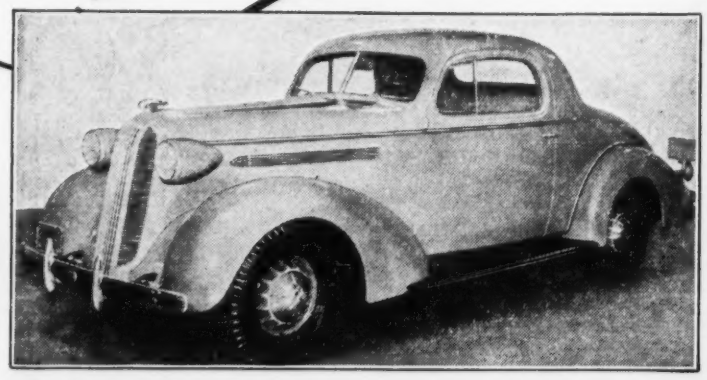
(*Continued on Page 52, Col. 3*)



STILL A PLACE FOR THE CRAFTSMAN. Modern production methods and labor-saving devices notwithstanding, the Fisher Body division of General Motors still places stress upon the skilled technician. Here is a metal worker hand-finishing the solid steel "turret top" of one of the new Fisher bodies that will grace a 1936 Pontiac.

From

1926 *to* 1936



Sealed Power salutes the great success, the high quality and enviable reputation established by Pontiac since 1926 . . . We appreciate the high compliment paid Sealed Power by Pontiac through their uninterrupted use of Sealed Power Piston Rings—for both original equipment and service — since 1926 . . . It is with this in mind, together with a full sense of responsibility in supplying a most vital part for a manufacturer with so fine a reputation, that Sealed Power continues as always to maintain manufacturing facilities and to produce piston rings that we believe are unequalled . . . The producers of 71.6% of the passenger cars and 86.6% of the trucks used Sealed Power Piston Rings in all or a large part of their production in 1935.

SEALED POWER CORPORATION, MUSKEGON, MICHIGAN

SEALED POWER

PISTON RINGS

Millions Have Been Spent on Pontiac Ads

Teaser Campaign Prepared Public For Introduction

Keynote of First Copy—Quality, Low Cost—Is Still Used

Every hamlet in America, and every civilized country on the globe, knows the familiar line, "F.O.B. Pontiac, Mich."

For more than a decade that line has looked out from the display columns of great national magazines and newspapers, from outdoor boards, and from many other media as the Pontiac Motor Co. went about the methodical business of telling the world about its motor cars.

Millions upon millions of dollars have been spent on that single purpose, and billions of impressions have been registered in the interest of Pontiac among the literate peoples of the world.

Over a period of years Pontiac has consistently ranked as a leading national—and international—advertiser. The original campaign devised to announce the car was vigorous and comprehensive, and the same policy has dominated company procedure ever since.

That first campaign 10 years ago created extraordinary interest, for it came in the midst of the flush year, when general practice in the industry was to ride along on the profit of current products rather than go to the expense of creating new automobiles. Perhaps more important, however, was the fact that Pontiac was the first new automobile to be brought out under the sponsorship of General Motors in many years past.

First Campaign

That first campaign broke in the Saturday Evening Post more than two months before the date set for public showing of the car. Full-page copy stated simply "A NEW GENERAL MOTORS AUTOMOBILE . . . To be produced and distributed by the Oakland division in addition to the present Oakland Six." The only illustration used was the double medallion employed for several years as a radiator ornament, showing an Indian head on one side, and "Product of General Motors" on the other.

Full-page magazine display copy followed weekly thereafter, each one with the same illustration, but with each block of copy telling a little more about the car, and toward the announcement date of Jan. 9, 1926, stressing low price as a leading sales appeal of the new product.

But in this two-month period no name ever was indicated. Although no public request for name-suggestions were made, sacks of mail arrived voluntarily offering aid in christening the new baby.

This indication of advance build-up was fully realized on announcement day. Crowds milled around the Pontiac booth at the New York automobile show. The same thing was true at other shows throughout the country, and in dealers' salesrooms. Orders piled up beyond anything in the industry's previous experience in new car introduction.

Slogan Used for Years

The announcement copy appeared in a double-page spread in the Post and other leading magazines, as well as in thousands of newspapers. Copy announcing the name as "Pontiac" appeared first in the Post on announcement day. It was subheaded by the slogan, "Chief of the Sixes," which was used for several years.

The advertising illustration, in addition to the double medallion, also featured an artist's concep-

(*Continued on Next Page, Col. 5*)

ANNOUNCING THE NEW PONTIAC
PRODUCT OF
Combining new economies in operation and maintenance with big car standards of comfort, safety and performance.
BIG 6
GENERAL MOTORS

Pontiac Campaigns Use Every Type of Media

THE MOST BEAUTIFUL THING ON WHEELS
HAS SUPER-SAFE Bodies by Fisher
1935
ONLY FROM A PLANT SO MODERN COULD COME A LOW-PRICED CAR SO FINE
Highlights of Pontiac Quality for 1935
Solid Steel "Turret-Top" Bodies by Fisher • Triple-Sealed Hydraulic Brakes • Speedlined Styling • Completely Sealed Chassis • Silver-Alloy Bearing Engines • 10-Second Starting at Zero • Even Greater Economy • No Draft Ventilation • Knee-Action • Luggage and Spare Tire Compartment
NEW PONTIAC SIXES and EIGHTS $615

Over 70,000,000 Direct Mail Ads Sent in 10 Years

Billboards Win Prizes; 5,000 Newspapers Used in 1935

(*Continued from Page* 30)

tion of Chief Pontiac, with hand upraised, and the explanatory footnote: "As the name of its newest product, General Motors has chosen that of 'the greatest Indian chief who ever appeared on the American continent'—Pontiac, renowned leader of the Ottaways, Ojibways and Pottawattomies."

It is significant that the first announcement copy carried a paragraph which has been the keynote of every campaign since the first. Said that copy:

"Into the price field where low first cost has hitherto been the chief inducement to ownership, the Pontiac also introduces the vitally desirable elements of beauty, stamina, comfort, economy and thrilling performance."

This theme of quality at low price, something better than mere transportation, has consistently appeared in all Pontiac advertising, for the car never once deserted the bounds of the price range for which it was originally planned. The manner of expressing this idea took many forms. One year, for example, the car was called the "Pontiac Big Six." But always the basic idea has been the same.

Used Indian Motif

The car, being the only one named for the American aborigine, has also consistently been featured in its advertising with some phase of the Indian motif. This has been more or less pronounced at various times, as different ideas prevailed, and one year went so far that the advertising illustrations carried reproductions of authentic Indian signs and characters.

Two men had perhaps more to do with the creative work on Pontiac advertising than any others. They were Henry T. Ewald, president of the Campbell-Ewald Co., then Oakland-Pontiac advertising counsel, and W., A. P. John, then copy chief for that agency, who today as partner in the agency of MacManus, John & Adams, Inc., is Pontiac account executive.

These men largely formulated announcement plans and campaigns, and John wrote the preannouncement and announcement copy for the first Pontiac. Between them, they have served continuously in active or supervisory capacities on the creative work on Pontiac advertising since the beginning.

In the summer of 1927 an original type of advertising conference was launched at the plant, which continued monthly for the next few years. On a designated day the president, sales manager and assistants, and all sales department heads would meet with agency principals in a conference room where the walls were lined with layouts and art work for future advertising. Copy would also be read before the gathering. Sometimes as many as 25 would voice their views on each display as it came up for discussion. The practice resulted in tying every advertisement up closely to the sales problem of the moment.

Aids Local Papers

The practice of advertising cooperatively with dealers, and of spending in their home communities a specified sum for each new car they sell, has meant a tremendous boon to local newspapers, for they get the bulk of the local appropriation. Last year, for example, more than

(*Continued on Page* 40, *Col.* 3)

Designer of 'Silver Streak' is an Unsung Hero

Pontiac Designing Dept. Has an Idea a Minute

About two years ago someone thought of the Silver Streak that distinguishes the Pontiac. But nobody knows who it was that originally had the idea.

Harley J. Earl, director of the art and color section of General Motors, who works closely with Pontiac's own engineers, can name the man who brought it to its present state of refinement, but the one who first had the rough idea is buried in mystery among 150 others working in the same department — sketchers, painters, sculptors and designers.

In the art and color section a whole staff of men work every day sketching on paper any idea that may occur to them. These sketches are laid aside for the department head, who sorts out those worth consideration and destroys the others. Practical sketches are turned over to the designers, who refine the original rough idea.

Worked on Idea

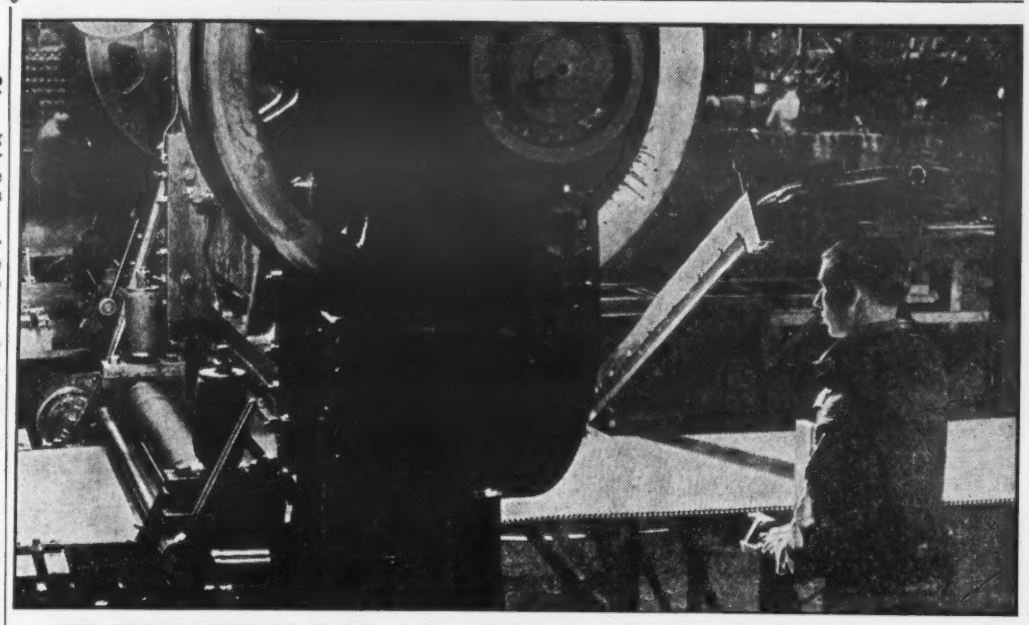
The head designer assigned to Pontiac picked up the Silver Streak idea in this way. Seeing the possibilities, he worked up a finished version and presented it at one of the regular morning conferences in the art and color section. Fifteen members of the ranking departmental officials served as a jury.

Pontiac's President Klingler said the design was just what he wanted—something distinctive to make Pontiac stand out in appearance.

Pontiac's distinctive radiator grille design also has become a distinctive manufacturing operation. Special press equipment and costly dies are required to produce the latticed front with its graceful curve.

Fourteen general manufacturing operations, with a rather large number of subdivisions of some such as metal finishing and polishing, are required to turn out the completed grille.

The blank stock comes to the press room in the form of large rolls of strip steel about the size of the rolls of paper that are used to print a big city newspaper. This endless strip of steel is fed through the first press, which is automatic in operation. This rapid stamping forms and pierces the pattern and design of the grille in the metal. The operator cuts off the stamped strip in workable lengths about eight feet long.



THE DISTINGUISHING MARK of the 1936 Pontiac is its "silver streak" radiator grille. This shows the first operation in the manufacture of that grille. On the left the plain strip of endless steel is coming off a huge roll like paper in a newspaper press. As it passes through the press the grille pattern is stamped into it.

Following this important forming operation the large sheets are cut into proper widths, the flanges flattened, ends trimmed and flanges bent. These are all separate operations. Then the V-form or surface curve is given the pieces and they are notched for fastening.

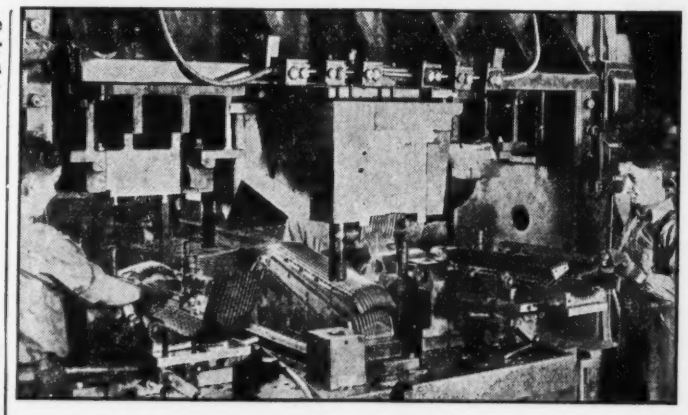
Cut and Trimmed

Next is the most interesting and probably the most intricate metal pressing and die operation in the entire Pontiac sheet metal plant. Five bending and restriking operations are performed in this press, known as bending the top for the curve over the top of the radiator; bending the bottom and three restriking operations which put the finishing touches on the contour of the grille.

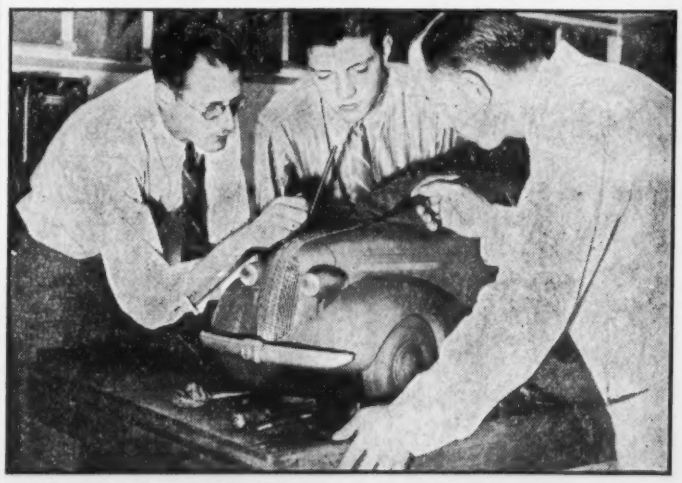
So intricate are these bending operations that the clamps which hold the parts in place in the dies have to be released and opened before the dies can be raised and withdrawn. Otherwise they would be damaged.

After these five press operations there follows the trimming of top and bottom; restriking the top; notching out the crankshaft hole; piercing the fastener holes and then metal finishing and polishing.

Making beautiful but complicated radiator grilles like Pontiac's, provides employment for a large number of men who would not have had jobs in the old days when the radiator and its shell stuck right out in the open.



THE MOST INTRICATE die and press operations in the Pontiac sheet metal plant bend and shape the "Silver Streak" radiator grille. There are five operations in this one press. The flat grilles are clamped into the first position at the extreme right. Here the top is bent. Then the grille comes to the left position, in the foreground, where the bottom is bent.



THE SILVER STREAK was a development of the Pontiac division of the General Motors Art and Color Section. Here the designers are putting finishing touches on a clay model during the early development stages.

10th

PONTIAC

Anniversary

Since the Pontiac car was first introduced, Guide Lamps have been providing efficient and dependable lighting for hundreds of thousands of Pontiac owners.

Another contribution to motoring safety is the installation of a Guide Headlamp Tester at the Pontiac factory.

GUIDE LAMP CORPORATION

ANDERSON, INDIANA

Pontiac Service Policy Shows Factory Interest

Dealers and Owners Alike Protected by GM Warranty

Pontiac dealers and owners alike benefit from the liberal protection afforded by the standard General Motors warranty and owner service policy. Each is fully protected should any part, except tires, prove defective in either material or workmanship within 90 days after delivery, or for a total of 4,000 miles, if that mileage should be reached before the 90-day warranty period expires.

The Pontiac's owner service policy is given a liberal interpretation. The company's active interest in the success of the dealer and the welfare of the owner continues from the time he drives away his new car until the time he buys another car.

Sells and Serves

It is the aim of the service policy to sell as well as to serve. Beginning with the Pontiac owner's handbook and the Pontiac owner magazines, the reselling of the car to the new owner goes on. He is instructed on breaking it in, and is urged to take advantage of the 500-mile and 1500-mile inspections and adjustments. Every effort is made to keep the owner sold on Pontiac by seeing that the car delivers all of the transportation which the owner expected when he bought it. Pontiac feels that is good business for the dealer as well as the factory.

Such a broad interpretation of service does not arise out of necessity, it is stated, but rather out of the desire to make sure that Pontiac owners are happy and satisfied.

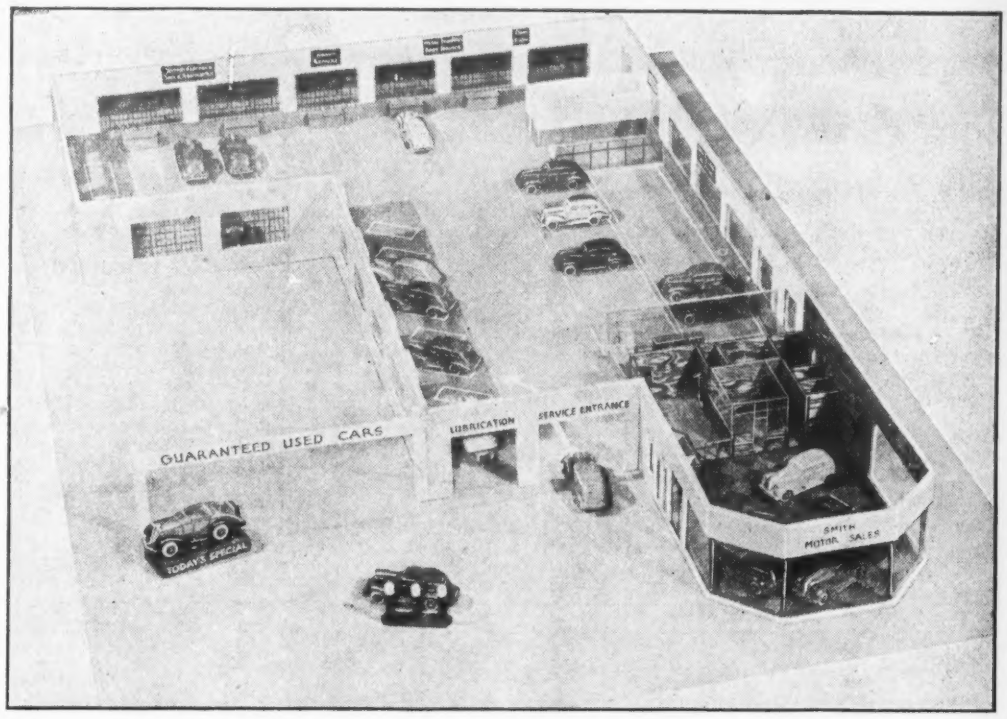
The new owner gets his first contact with Pontiac service at the time of delivery. He is shown the two coupons attached to his service policy, which entitles him to inspections and adjustments without charge after he has driven 500 miles and again after 1,500 mile of operation. It is recommended, of course, that these break-in adjustments be made by the dealer who originally sold and serviced the car, but should a new owner start out immediately on a long tour or move from one city to another, he may obtain these services from any authorized Pontiac dealer in the United States or Canada.

Dependability of the new Pontiacs is such that service demands of most owners are of the simplest nature. For the exceptional case, which may prove a problem for the dealer, Pontiac maintains a service adjuster in each zone office. It is his business to help the dealer in interpreting the service policy and in working things out to the satisfaction of the owner. This cooperation is of direct benefit to the dealer and reflects the responsibility assumed by the factory in helping the dealer to stand back of every car he sells.

In Remote Areas

Another illustration which shows how far Pontiac's interest goes beyond merely building and selling new automobiles is seen in the service protection extended to owners traveling in remote districts of the country. When an owner off the beaten track gets into trouble for some reason or other and finds there is no Pontiac authorized service station at hand to help him, he is urged to telephone or telegraph direct to the Pontiac factory. The factory service department will then get in immediate touch with the zone office for the territory in which the owner is temporarily stranded and the zone office in turn will see that the owner is properly taken care of with the least possible delay.

A service policy of this scope pleases the owner and pleases the dealer, because it gives him the support he needs in serving his customers in the way the customer wants to be served.



MODEL SHOP layout on display in the conference room at the Pontiac factory. Every effort is made to aid dealers in arranging their new car, used car and service departments to the best advantage. This attitude results in increased profits from these divisions.

Success to Pontiac

"THE MOST BEAUTIFUL THING ON WHEELS"

wheels furnished by

KELSEY·HAYES

MAKERS OF
THE MOST BEAUTIFUL AND MOST
MODERN WHEELS IN THE WORLD

Chicago Dealer Sells 60,000 Pontiacs in Decade

$70,000,000 Retail Value Community Motors Record

Selling 80,000 cars in fewer than 15 years, a figure which includes more than 60,000 Pontiacs in the past 10 years in almost a record for an automobile dealer. Counted in money the value of these cars at retail has made for a volume of over $70,000,000. Together the figures sound like the record of an automobile manufacturer.

Yet that is the volume of business done by Community Motors Inc., exclusive dealers in Pontiac cars and Pontiac products in Chicago, a record that places that firm among the world's leaders in retailing of motor cars. For 10 years the firm has been one of the Oakland and Pontiac leaders in retail sales. The record is all the more remarkable for the Community Motor Inc., territory has been practically confined to the area embraced within the limits of the Windy City. It has placed Pontiac cars on the map in a way that has often been the envy of the makers of other cars. During the 10 years that Pontiac has been its sales leader the company has paid out over $6,000,000 in salaries and almost an equal amount in commissions to its sales force.

Started With $25,000

Heading the company is Phil Knoedler aided by Hugo A. Wehmeier as vice-president and general manager. Next in line is Nels A. Hendrickson as watch dog of the treasury. These three men starting in business in a modest way with a capital of $25,000 have expanded the business from an average dealership to a merchandising unit that has attracted the attention of not only the wide awake dealer organization in Chicago but elsewhere throughout the entire automobile retailing world. When the Pontiac automobile was introduced to supplement the Oakland, Community Motors had an allotment of approximately 4,000 cars for the year. In 1928 and 1929 the company retailed close to 8,000 cars in each of those two years and it was this sales record that started the famous $5,000 wager between Community Motors, through Wehmeier as its general manager, with "Dick Richards" then heading the Richards Oakland Co. in Detroit. Richards won by a small margin although the sales efforts of Community Motors pushed him to the limit. Its record for sales since that time have been based on intelligent merchandizing and its selection of well located sales rooms in the various communities throughout the city. In 1928 Community Motors sales affiliations and its own stores in the city numbered 39 retail outlets and equally as many service stations.

Community Motors was started originally as a distributor over several states for a car then coming into being. Wehmeier was the guiding spirit being head of the company as well as traveler in the territory. Shortly after Wehmeier took on Chevrolet in the Chicago trading area. To gain distribution the company opened four stores in widely scattered sections of the city and in such centers as had a sales potential. It was the first of the community salesroom operations in the United States and was a fore runner to the present neighborhood sales and service station idea of automotive merchandising although the newly opened Community Motors stores did not attempt to give service to the car owners.

Has Seven Showrooms

The first and main store of the company was an unpretentious building on Michigan Avenue which then, like other main thoroughfares in other cities, was the show room line up of Chicago. The headquarters of the company, together with the service station set up to take care of the main store as well as the four other stores, was on an outlying street far from the show rooms. Late in 1924 the company took on the Oakland line and with the coming of the Pontiac car Community Motors have since been one of the leading outlets for the Pontiac plants.

Today the firm maintains seven show rooms for the displaying of Pontiac cars and the merchandising of parts and accessories. Service is extended to car owners by means of strategically located service stations maintained by the company. In service work Community Motors has been outstanding because the company has installed every factory suggestion in the way of equipment and methods, trying any logical plan to the limit until it might prove to be good or bad but always striving to maintain the best service in the city.

Community Motors service policy led to increased business in car sales from the date of the opening of the three service shops. It was the type of service rendered that attracted the attention of the various associate dealers under the company and by 1929 Oakland and Pontiac service in Chicago was rated the best. At the height of the depression when new car sales were moderating Wehmeier being convinced that there was just as much money to be made in repairing and servicing cars added to his equipment. Every known device was added, the factory flat rate programs adopted and a car owner taking his car into any one of the service stations could bank on getting it back at three o'clock if that was the time set. He felt that a promise was a promise and every employe was schooled to follow the rule.

Use Novel Methods

However sales of new and used cars have been Community Motors' money makers and to get results Wehmeier aided by both Knoedler and Hendrickson have used methods unusual with the average dealerships. There has scarcely been a selling season when Community Motors has not had yearly as well as quarterly sales contests for the men. All awards, and some of them have been munificent have been based on merit alone. Wehmeier keeps in close touch with his men. He visits all the stores regularly, talks to the men about any sales problems they may have and holds so many sales meetings that if it was not for the way he handles the meetings he would never have even a corporals squad. All meetings are generally in the way of luncheons or dinners The dinners are generally addressed by men in various lines of sales effort who give the men an idea of what other businesses do in sales promotion.

He also uses another plan which few dealers in the industry ever have attempted. For years he and the organization held an annual picnic for the car owners. It was a free for all for any person holding a license for either a Pontiac or Oakland car, new or used. These picnics were always handled at some playground out of town and if any dealer thinks the plan not worth while he has only to get the figures of the 1930 affair when over 10,000 owners

H. A. Wehmeier

with their families attended. Games and contests by the score with automobile accessories as first, second, third and fourth prizes plus free ice cream, sandwiches, cake and coffee as dancing all day sent home plenty of sales boosters for Community Motors and the Oakland and Pontiac cars.

Value Reputation

Today Community Motors, Inc., is more than a dealership in Chicago. It is an institution handled along such exact business and merchandizing lines that its operations and functions would bewilder the average automobile dealer. Its policy adjustments will stagger any dealer for with Community Motors the cost of adjusting any owners complaint may lead to even giving the owner a new car for owners good will is worth more than quibbling over what the owner seems to feel should be given him. Wehmeier and Knoedler count dealer reputation as their main asset and these policies have largely contributed to their success.

The company sold an impressive number of cars in 1934. 1935 has been ever better and the company counts on 1936 as being in line with their best years when it was generally conceded that Community Motors could be counted on better than 50 per cent of the cars allotted by the factory to the Chicago zone.

Staff Exceeds 200

The present sales staff of the company exceeds 200 men. The service crew manning the shops is always adequate to handle all service work and both staffs always have a waiting list of candidates for jobs. The selling force is a well trained one, some of the men obtaining their up to date training at the schools which Wehmeier and his sales promotional staff hold at regular intervals. Candidates for this school are not always selected from men with automobile experience. Instead they are men from other walks of life. If at the end of the school the students feel they can not carry on they are paid for having taken the course, a procedure which makes for good will afterwards. Those who survive the course are given the first opportunity to join the staff and it is from these men that Wehmeier builds his sales force.

"Birds of a feather

It is natural and fitting that PONTIAC should guard its reputation for QUALITY by standardizing on Wilco Exhaust Manifold Thermostats.

WILCO Thermometal is widely used by manufacturers of numerous products or devices designed to function under changing temperature conditions. Because WILCO metals are uniform and stable and give dependable operation under minute temperature changes, their uses are growing almost daily.

A few of the automotive devices operating automatically with WILCO metals are as follows:

AUTOMATIC EXHAUST HEAT CONTROL
CARBURETOR CHOKE :: CARBURETOR CONTROL
TEMPERATURE COMPENSATION FOR SHOCK ABSORBERS
WATER TEMPERATURE CONTROL
OIL GAUGES

☆

The H. A. Wilson Company
105 CHESTNUT STREET, NEWARK, N. J.
Branch Office—CHICAGO, ILLINOIS

Radical Changes Mark Pontiac's First Decade

Progress in Many Lines Challenges Imagination

Motor cars, inventions, dress, habits, customs and government have come a long way since the first Pontiac car was built 10 years ago.

Col. Lindbergh had not flown the Atlantic ocean, only one talking motion picture had been made, wire photos were unheard of, and transcontinental commercial aviation had not started. The shortest time a person could cross the continent on a public carrier was almost four days—not less than 24 hours as it is today.

Tin Foil Cigars

There were no streamline trains, no fan dancers, no cellophane wrappers. Babe Ruth was still on his way up. Bill Tilden was tops in Davis Cup play and Helen Wills was still a junior. Gene Tunney was beating Jack Dempsey the first time in Philadelphia.

Shirley Temple wasn't born, women's skirts were knee high, we knew little or nothing about air conditioning, photographs could not be taken of objects 300 miles away, the world's first quintuplets were still eight years and more in the future, Calvin Coolidge had not uttered his famous "I do not choose to run," another famous expression "prosperity is just around the corner" had not been coined, the air was not being cluttered with Rudy Vallees, Ben Bernies, Walter Winchells or Jack Bennys and Amos 'n Andy were Sam 'n Henry on a single radio station in Chicago. We had large sized paper money and who ever heard of badminton or contract bridge?

The comparison of Pontiac's engineering features then and now shows as marked a development. There are more than 100 features on the Pontiac six of 1936 that either were unknown in 1926 or were out of the reach of a car in the Pontiac price class.

Body Advances

Just look at a few of them:

Solid steel bodies, safety glass, knee action, triple seal hydraulic four-wheel brakes, insulated bodies, 3-passenger front seats, adjustable front seats, Fisher no-draft ventilation, car radios, adjustable sun visors, built-in trunks with concealed spare tires, modish streamline appearance, hood and radiator grilles, "V"-type windshield, arm rests—front and rear, wider front doors, much roomier bodies, much lower bodies, improved indirectly lighted instruments, assist cords, coat hangers, comfortable accelerator pedals, non-glare rear view mirrors, dual windshield wipers, electric gas gauge, electric temperature gauge, inside locks on all doors, glove locker in instrument panel.

Package shelf, overlapping doors, screened cowl ventilators, better trimming, better cushions, rubber running boards, multi-beam headlights, headlight beam indicator.

Cross-flow radiators, insulated exhaust system, air cooled fuel lines, anti-theft gasoline tank, convenient jack pads, hydraulic shock absorbers, metal spring covers, steel reinforced steering wheels, cast iron brake drums, K-Y rigid frame, completely sealed chassis, syncromesh transmission— quiet in all gears, rubber engine mountings, gaselector, mechanical gas pump, air cleaner and silencer, crankcase ventilation, quick warm-up manifold, automatic choke, downdraft carburetor, uniform balanced rods and pistons, rifle-drilled connecting rods, silver cadmium bearings, patented electro - plated pistons.

Engine Features

Thermostatic temperature control, gusher valve cooling, harmonic balancer, 100 per cent counterweighted crankshaft, steel wheels, 16" x 6.00" tires, 18" steering wheel, 10" single plate clutch, metered full-pressure lubrication, exceptional economy, speed of 79 miles per hour, horse power 80 and overall length 189¾ inches.

Nine Rules Will Save Money, Say Test Engineers

Nine simple driving practices, which, if followed, will add measurably to the mileage delivered by any car, have been evolved by Pontiac engineers in connection with recent economy tests.

Believing that many owners would be grateful for having this information, the findings of the engineers are herewith listed:

Fuel Wastage

1. Every time you start, you use enough gas to drive a half-mile. The remedy is to look ahead for signal lights, move into them at reduced speeds and glide through on the green instead of slamming on the brakes and then having to shift through the three gears.

2. Every time you drive a mile with the choke on, you use enough gas to drive three miles.

3. Every time you push the accelerator down to the floor you waste up to 60 per cent of your fuel. Accelerate gradually, and save gas.

4. Every time you drive in second with the accelerator down to the floor you waste upwards of 70 per cent. To save gas don't drive above 25 m.p.h. in second and accelerate gently.

5. In driving up a grade or hill you decrease gas economy 25 to 50 per cent. To save it, don't accelerate on a hill but drive at a uniform speed in high gear.

Wind Cuts Economy

6. When you drive at your normal rate into a wind your gas economy drops 10 to 20 per cent. To save it, reduce your normal speed.

7. In addition to its danger, high speed driving wastes gas. At 50 you can go 25 to 30 per cent farther on the same amount than at 70.

8. While an idling motor uses little gas, prolonged idling makes a sizable cut in the gas supply. Turn off the ignition switch if the car is to stand more than one minute.

9. On slippery pavements, the more skidding you do, the more gas you use. Reduce speed until you have sustained traction on both rear wheels. It's not only safer, but cheaper, too.

If only half the drivers in the United States would follow enough of these recommendations to effect a 10 per cent reduction in their annual fuel consumption, the saving would amount to $90,000,000.

Pontiac . . .

Your fine record of 1935--more than doubling your production of 1934--is a public recognition of engineering, design, production and sales efficiency . . .

If the Cleveland Graphite Bronze Company has contributed anything to your success, we are grateful for the opportunity granted us.

Dealers Find Projectors are Best Aid to Sales

Prospects Succumb to Lure of Motion Pictures

Each month more and more dealers are finding film projectors the best sales aid in which they can invest. Here are two more expressions:

"Just before the announcement date of the 1936 Pontiac we purchased a motion picture projector and the two films 'Silver Streak' and 'Extra Values' and at the time we were rather doubtful as to whether it would be a good investment for a dealership as small as ours. But after using this equipment for approximately 60 days all such doubt has been removed.

"We definitely sold two cars as a result of the use of the equipment, in fact we had all but lost the deals to competitors and as a last effort we were able to get the prospects to view the two films and at the end of the showing we secured the orders.

Material Sales Aid

"The use of this equipment has materially aided in other deals and recalls to the salesmen a number of important features that we sometimes overlook and fail to stress in a showroom demonstration unless we have something like the 'Extra Value' film to show us the importance of using everything we have in the product to close the sale.

"We are more than glad that we purchased the equipment and have made but one mistake in the use of it and that was the time that we let a prospect, for a higher priced car that we handle, see the picture—so we received an order for a Pontiac eight.

"We only hope that you will be able to furnish other films during the year and if we were permitted to make a suggestion, we would suggest a film showing the securing and development of prospects, first contact, road demonstration, showroom demonstration, appraisal and delivery of the new car. Such film to be used in coaching salesmen."— L. A. Weisser, president, Chieftain Motor Co., Inc., Columbia, Mo.

"Recently you asked for a report on the sound film activity.

"Following you will find my own personal impression of and experience with this equipment.

"Whenever you have a prospect who is just a little on the fence, the showing of this film will do the trick for you, for the reason that it gives him the most complete and concise story of the Pontiac that has been developed so far and does it in a way a salesman cannot do.

Sells Used Cars

"We have had many, many cases where prospects who were on the fence, made a decision immediately after seeing this film.

"We have also had a number of experiences where a used car trade was entirely out of line, and after showing the film we were able to take in the used car on a profitable basis.

"About a week ago we exhibited this film at a charitable affair where hundreds of people were present and the reaction was very, very splendid.

Creates Confidence

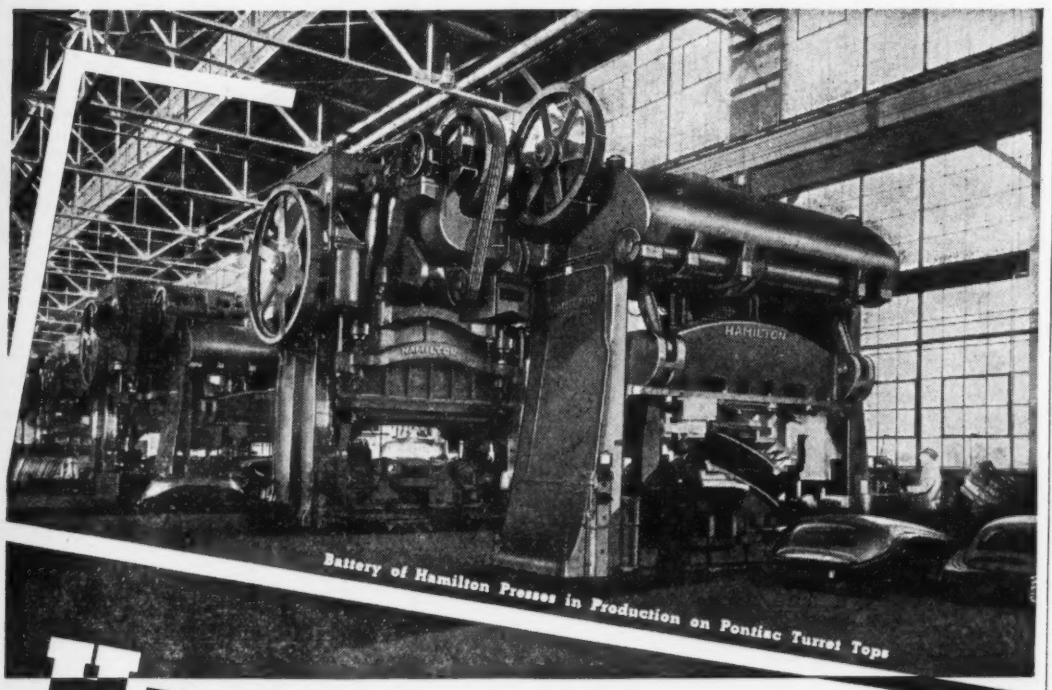
"In other words, it gave a large number of people who normally would not think of Pontiac, a good idea of our product.

"About two weeks ago we took our projectors and films to Altgelt Park and exhibited them to about a hundred people who gathered there for an evening's entertainment and again we had a very favorable reaction.

"To my mind anything like this is very well worthwhile."—H. A. Wehmeier, vice-president, and general manager of Community Motors, Inc., Chicago.

Pontiac Personnel

Executive personnel of the Pontiac Motor Co. consists of H. J. Klingler, president and general manager; A. W. L. Gilpin, vice-president and general sales manager; B. H. Anibal, vice-president in charge of engineering; P. H. MacGregor, general plant manager; C. P. Simpson and D. U. Bathrick, assistant general sales managers in charge respectively of western and eastern United States; F. A. Berend, advertising manager; L. K. Marshall, service manager; J. S. Evenson, sales promotion manager; O. A. Lamoreux, accessories manager; Harold Schmidt, comptroller; E. B. Rogers, traffic manager; and I. H. Long, personnel manager.



Battery of Hamilton Presses in Production on Pontiac Turret Tops

HAMILTON PRESSES used to make PONTIAC PARTS

HAMILTON PRESSES are an important part of the manufacturing equipment relied on to produce the exceptional body work of the Pontiac car. On these presses are produced such principal parts as . . . The Turret Top . . . Body Side Panels . . . Front and Rear Fenders . . . Hood Top and Sides . . . Doors • In addition there are also many other smaller Pontiac elements being produced on Hamilton Presses. These units are all recognized for the high quality of work they produce, their dependability and economy of operation.

GENERAL MACHINERY CORPORATION
HOOVEN • OWENS • RENTSCHLER DIVISION
2842 W. GRAND BLVD., DETROIT, MICH.

Joe, Oldest Employe, Is Loyal Pontiac Man

The first Pontiac and the 1,000,000th Pontiac both stand out as clearly in Joe Frechette's mind as if they had both been rolled onto the pavement today.

For Joe is Pontiac's oldest employe. He's been around a long time and they've torn down the building where he worked back in 1901. Three decades and four years to spare is the exact term of Joe's hitch of continuous service with Pontiac Motor Co. and its predecessors.

He was with the company when it built its first automobile 28 years ago and he was with the Pontiac Buggy Co. six years prior to that.

Joe is experimental blacksmith today — he was experimental blacksmith when the first car was made and he was a blacksmith for the buggy company back in the days when the word blacksmith was synonymous with horseshoer.

Was Chief Blacksmith

Those were the days before electric flash welding, steel stamping and emery grinding. The blacksmith did it all then. And Joe was chief blacksmith in one of the city's leading businesses.

"It was several years after I joined the company that they went into the automobile business," Frechette said. "To be exact, we built the first cars in 1907. And, believe it or not, those times were just as exciting to me as today when a thousand cars daily is common.

"In the early days of the auto business, blacksmithing held an important place. Most of the heavy production operations that are done by machinery now had to be done by hand then.

"I was experimental blacksmith on the first two-cylinder Oakland they ever built. We thought we had hit big production when we put out 35 cars a month and the average output, in those days, was only one car every other day."

Keep Up With Times

For 17 years Joe was foreman of the blacksmith shop and the assembly line. At one time he was foreman of the small parts and nickel plating departments.

Experimental blacksmithing was his first love, however, and he has always kept abreast of the times in his chosen trade, even when he was not working at it actively. Since 1928 he has devoted himself entirely to blacksmithing.

Frechette is one of those fortunate individuals whose privilege it has been to help make Pontiac such a good automobile that 85 per cent of them are still rolling over the roads.

HE IS PONTIAC'S OLDEST employe, Joe Frechette, a blacksmith by trade who works in the experimental engineering department. Joe was a blacksmith when the Pontiac Buggy Co. built carriages in 1900. He has had a hand in building every Oakland and Pontiac automobile.

Fisher Spends Large Sums on Workers Comfort

Safety Ideas Not Limited to Design of the Bodies

Considerations of safety and comfort are not limited by Fisher Body to the design and construction of its products, but govern manufacturing processes as well.

Realizing that safe working conditions for employes are as important as the provision of safe transportation for the motor car buyer, General Motors' body-building division each year spends large sums in the development of methods for protecting its workers from accident and injury.

The same thing is true of comfort. Fisher officials have long recognized the fact that pleasant working conditions for employes add to their efficiency, lessening fatigue just as does the provision of comfortable seats, sufficient leg and head room, arm rests, inside sun visors and other things of like nature in a motor car body.

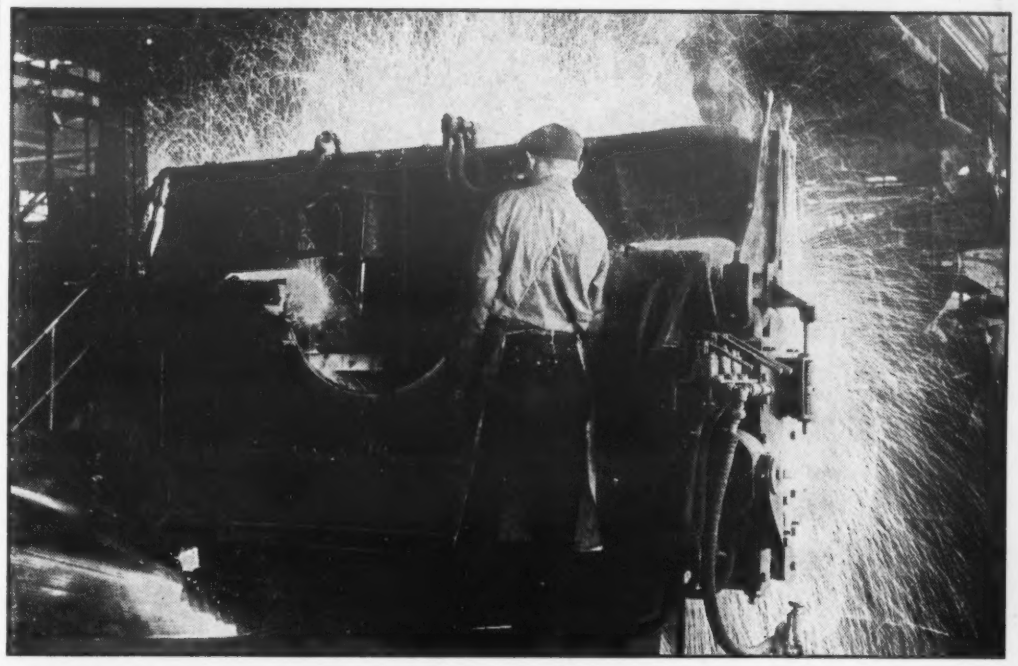
Consequently, every comfort and convenience possible for the workers is provided in the 25 Fisher Body plants throughout the country. A typical example of this is found at the Pontiac, Mich., unit, which produces bodies for the Pontiac line of motor cars.

Some $200,000 was spent as a part of the recent expansion program to install new spray booths in the paint shop. Of the most advanced type, they make it unnecessary for the workmen to wear the customary masks over the nose and mouth to protect the lungs. Air that has been warmed and filtered—15,000 cubic feet per minute for each man—is circulated through the booths by giant blowers that remove the lacquer fumes as the air is exhausted.

Equipment in the paint shop also includes a special machine for spraying the one-piece, seamless steel roof of the "turret top" bodies as they pass down the line. It does not replace the operator, who must change guns when a different color is required, inspect the work and make any necessary corrections, but it does materially improve the conditions under which he works. Like the others, he no longer has to wear a mask.

Safety devices to protect the workmen likewise are found throughout the plant. To cite a single case, the mammoth presses that draw and form the solid steel "turret top" are equipped with four control stations, two in front and two in the rear. Each station has two push buttons, which the operators must depress while the machines are in operation, thus keeping their hands safely occupied. If any one of the eight buttons is released after the press goes into action, the current is broken, and the brake immediately stops the slide.

A considerable sum was spent in 1935 in the construction of a new cafeteria, with its walls largely of glass, it contains 17,000 square feet of floor space, and can feed 1,700 workers during the noon hour. Locker rooms and showers also are provided as a means of adding to comfort of the employes.



A BLINDING DISPLAY of pyrotechnics accompanies the flash welding of the inner and outer halves of Pontiac front fenders. A battery of four of these costly electric machines welds the front fenders along a 90-inch seam. Six or seven seconds are required for each fender.

Oldest Employe

Joe Frechette, oldest employe in the plant of the Pontiac Motor Co., went to work as a blacksmith back in 1901 at the old Pontiac Buggy Co., which subsequently grew into the present Pontiac organization, thus giving him 35 years of service in this one enterprise.

GM'S Third Company

Pontiac was the third company taken into the then new General Motors group. That occurred in the summer of 1909.

New Orleans Dealer Open In Time for '36 Display

The new showrooms and super service station of the Community Motors, Inc., New Orleans, were opened in time for the public display of the new 1936 Pontiac lines.

All three floors of the building have been remodeled at a cost of $30,000 and everything in the repair and replacement line will be available to patrons, according to E. Albert Stephens, president. A total of 65,000 square feet of space has been devoted to the installment of various equipment necessary for servicing and repairing not only Pontiac cars but also all other makes, he said.

Besides the elaborate floodlighted showrooms on the ground floor, the center of the building has been arranged like a city street with various "shops" on it.

Said the Indian to the Sphinx

"QUIET PLEASE..."

With the wisdom inborn in great chieftains, Pontiac turned to the Sphinx, symbol of quietude, for developments that would make motoring quieter and more comfortable. Today, quality materials, originated in the Flintkote laboratories and marketed under the sign of the Sphinx, are used for sound-deadening the entire body of the Pontiac. Specially developed Flintkote Felts and Adhesives retard the transmission of sound through all metal parts in the body. Flintkote Asphalt and Rubber Compounds also add to the quietness, comfort and long life of the Pontiac.

Flintkote congratulates Pontiac on its tenth birthday and takes pride in the part it is taking to make Pontiac the great motor car that it is today. THE FLINTKOTE COMPANY, AUTOMOTIVE DIVISION, 14201 Schaefer Highway, Detroit, Michigan.

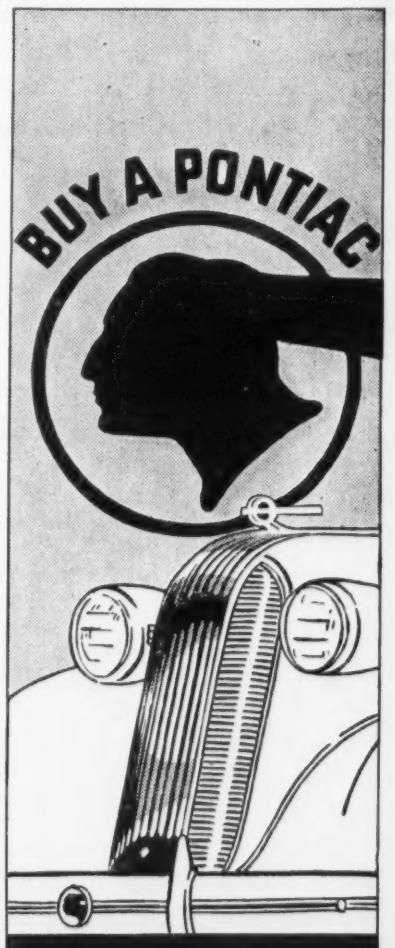
SOUND DEADENERS PROTECTIVE COATINGS

ADHESIVES FELTS CRACK SEALERS

FLINTKOTE

AUTOMOTIVE PRODUCTS

FLINTKOTE ASPHALT PRODUCTS PROTECTION



FLINTKOTE ASPHALT PRODUCTS PROTECTION

City of Pontiac Founded by Sturdy New Englanders

Col. Stephen Mack Led Band Of Intrepid Pioneers to Site

By FRED C. SIBLEY

When you think of industrial New England you think of textile mills and shoe factories that top any other region of the world in volume of output. It never occurs to you also to link this section with the manufacture of the automobile.

Yet New England has a valid claim to fathering a great industrial center devoted almost exclusively to the building of motor cars—a center of nearly sixty thousand population that New England hardihood reared out of a forest cluttered with Indians, bears and rattlesnakes.

You have to go back more than a hundred years to get at the beginning of the story—back to 1818 when Williamstown, Vt., and Rehoboth and Dighton, in Massachusetts, were thriving communities peopled with that rugged type of pioneer who dreamed great things for the west.

Bound for West

Oakland County, Mich., was the destination for a group of these pioneers — particularly the present city of Pontiac, the county seat and the home of the early Oakland Motor Car Co. Of those pioneers most prominent, Massachusetts sent Elnathan Phelps of Pittsfield, Mrs. Nancy Davis and Joshua Simmons; Vermont sent Jedediah Durkee and the Hon. Theron A. Flower and Connecticut sent Col. Stephen Mack.

No one took so large a part in the development of Pontiac as Colonel Mack. He conceived the town and made it a reality. So intimately is his personality interwoven with the early life of the village that the story of Pontiac is really the story of Colonel Mack.

Born in Connecticut in 1763, he served for several months with the American Army in the Revolution, when only 15 years old. Later he married Temperance Bond, of Gilson, N. H., and settled at Tunbridge, Orange County, Vt., where he engaged in the mercantile business. His great interest in military matters brought him command of a regiment of militia of the Green Mountain state, whence the title of "Colonel."

In 1810, Colonel Mack disposed of his various business buildings, left his wife and 12 children in Vermont and migrated with one Thomas Emerson, of Norwich, Vt., to Detroit, then a flourishing outpost whose fame was well known to New England.

Reports Were Good

Flattering stories had reached him here about the country just 30 miles north of Detroit, on the Clinton River, near Orchard Lake where Chief Pontiac, greatest of the Ottawa, Ojibway and Potawatami used to like to spend his days between depredations on the settlers in an earlier era. It was, reports stated, the logical place for an extensive settlement.

Colonel Mack decided that the Clinton River site was worthy of promoting. He gathered about him 15 capitalists of the time and organized the "Pontiac Co.," taking the name of the famous chief. Every member of the company advanced him $10 with which to make the down payment of $120 for the property, consisting of 1,280 acres. This was one-twentieth part of the total cost.

Colonel Mack effected the purchase on Nov. 6, 1818. He became acting agent and general manager of the company, and moved from Detroit to the new location.

With his former Detroit mercantile partner, Conant, and Judge Sibley as a silent partner, he formed the firm of Mack, Conant and Sibley to make first improvements at Pontiac.

The first building ever erected there was a temporary log hut thrown up by Colonel Mack to house him and Conant and their employes. This building was later occupied by several families of early settlers, most of them native to New England. The site is marked by a tablet erected on Aug. 21, 1916, by the Daughters of the American Revolution.

River Was Dammed

Upon completion of the cabin, the settlers threw a dam across the Clinton River and erected a sawmill, a first commercial enterprise in a town which today builds hundreds of millions of dollars worth of automobiles a year.

After the sawmill got into operation a number of Detroit settlers came out to the new location to make it their home. The building of permanent houses got under way, and shortly a blacksmith shop and a flour mill were erected.

Colonel Mack brought his family on to Detroit from Vermont in 1822 and the following year moved them to Pontiac to a large house he had erected earlier as a sort of combined residence and Pontiac Co. office building. His son, Almon, made himself generally useful in the business and later succeeded to the management of his father's holdings.

Colonel Mack fell into that large list of pioneer spirits whose long career of usefulness ends in sorrow. His daughter, Lovina, was the first adult to die at Pontiac. Colonel Mack himself died in November, 1826, and, like his daughter, was buried on his own property. His estate was involved in the disastrous collapse of the Bank of Michigan, with Colonel Mack's name the only solvent one on the bond of the cashier, who defaulted for a large amount. Except for a small dower for the widow, the entire estate was absorbed in the settlement, leaving the heirs penniless.

Transportation was of vital interest even in those early days—another curious fact in light of the millions of miles of transportation represented by Pontiac-built automobiles in use today. The village lay on comparatively high ground on the banks of the Clinton River, but between Pontiac and Detroit was largely swamp country over which wagons scarcely could make their way. Many early settlers from

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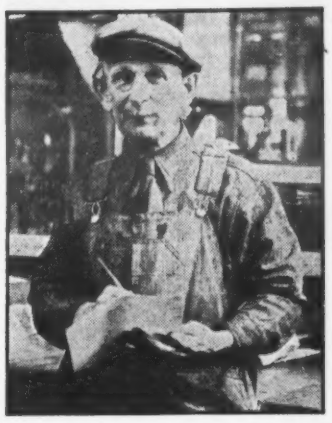
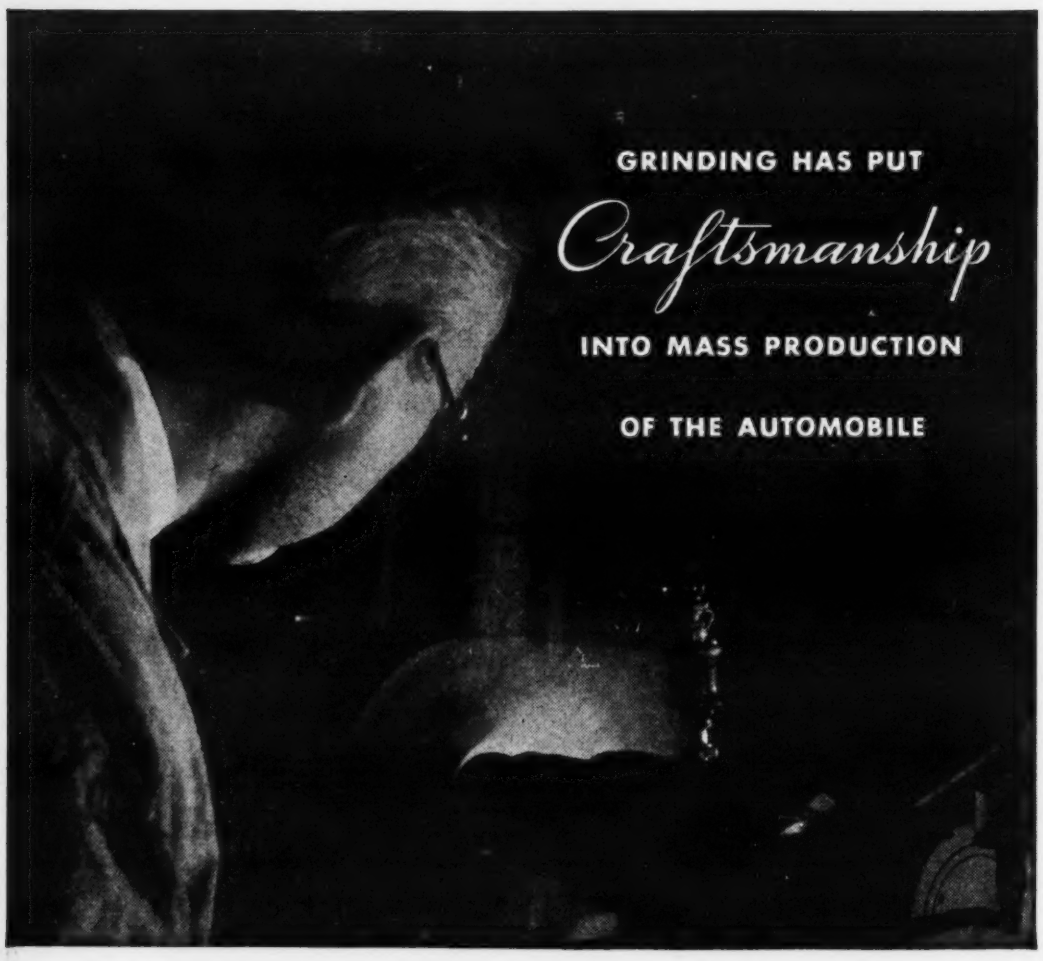


MORE THAN 25 years with the Pontiac and its predecessor company is the service record of Charles A. Philbrook, receiving checker.



. . . HENCE THE 100,000 MILE CAR

GRINDING has added thousands of miles to the life of the automobile. And The Carborundum Company has made many outstanding contributions to the industry.

Notably the 42-inch crank grinding wheels; the improved wheels for grinding cams, pistons, pins, axles, gears, ball and roller bearings; improved wheels for grinding and conditioning the tools used in the thousand and one machine operations; lapping compounds that create perfect finishes and surfaces.

Carborundum and Aloxite Brand Wheels grind the cylinder blocks and other castings. They grind the billets from which the steel stock for countless parts is fabricated. Even the pigments of paint and lacquer finishes are ground.

Coated abrasives, products of The Carborundum Company, sand and finish bodies and snuff upholstery leather. Our abrasive grains polish the hardware and bevel the glass.

Carborundum-made products have played a major part in making constantly better automobiles available to more and more people.

THE CARBORUNDUM COMPANY

Niagara Falls, N. Y.

(Carborundum and Aloxite are registered trade-marks of The Carborundum Company)

Refined Economy Features Mark New 1936 Pontiacs

The majority of questions asked by prospects at the auto shows clearly indicated that in all sections of the country, Mr. 1936 Motor-Car Buyer, is more than ever "economy conscious," but more important probably, was the further indication that he also fully appreciates the fact that gasoline mileage is but one consideration when determining "true motor-car economy."

The 1936 Pontiac is an economy leader from every standpoint. So this trend is welcomed by Pontiac dealers and salesmen, and every member of the retail organization will find it profitable to stress economy at every opportunity, according to factory officials.

To those planning to buy cars, savings in original cost are important, officials point out.

Oil economy is assured by—100 per cent full-pressure metered-flow lubrication—pressure-suction crankcase ventilation with oil preserving baffle at the outlet pipe—full length water jacketed cylinders—rear main bearing oil seal on crankshaft—compression rings that are grooved to prevent oil escaping into the combustion chambers.

Precision construction and balancing of Pontiac engines makes not only the costly major repairs but also the minor ones almost unknown, engineers say.

The cross-flow radiator—exclusive with Pontiac, besides being an important unit of the cooling system preserves expensive anti-freeze solutions by reducing the possibility of their escape through the overflow pipe.

Voltage control with the fan-cooled generator assures long life for Pontiac batteries, lamp bulbs and other electrical equipment.

Pontiac's low piston travel is one of the many reasons why Pontiac parts seldom have to be replaced, it is said. At 60 miles an hour only half the available horsepower is used, which means the strain on a Pontiac engine even at high speeds is negligible.

Here are a few of Pontiac's features contributing to gas economy—vacuumatic spark control—gaselector—G. M. R. high compression cylinder head—and the down draft carburetor — features that are reported to enable owners to obtain 16 to 18 miles to the gallon on the eight and 17 to 19 miles on the six.

Pontiac Aims for New High, Record Sales Year Foreseen

(*Continued from Page* 3)

liberal factory-dealer contracts and an aggressive service policy which is designed to aid dealers in keeping their owners satisfied. Special attention also is being given to the sales of accessories which a recent survey by the National Automobile Dealers Assn., among 850 dealers, revealed to be the second largest profit maker in the average dealership set-up.

But equally important with the product and its promotion are the men who direct the destinies of a company. These men in Pontiac, Harry J. Klingler, president; A. W. L. Gilpin, sales manager; B. H. Anibal, chief engineer; and F. A. Berend, advertising manager, and their host of co-workers and assistants, enjoy a remarkable degree of confidence from their fellow workers, dealers and the public. This combination of a good product, closely knit organization, sane courageous management and a strong virile dealer body place Pontiac in an enviable position in the realm of motordom.

Hold Ad Meets

Close liason between factory and dealer can perhaps be no better exemplified than the co-operative work being done in the advertising department. Monthly meetings on future programs are held at which dealers from various parts of the country are brought to the factory to report on the effectiveness of past effort and to give helpful hints regarding future procedure. These meetings are an open forum type which prove beneficial to dealer and factory alike and bring advertising programs into accord with conditions obtaining in the field.

Another example is the factory service schools. Zone service representatives are brought to the plant before new models are introduced and thoroughly schooled in the changes that have been made from the previous models. These schools are not based on theoretical discussion of what should or should not be done but are practical courses in mechanics and engineering, wherein the students take the cars apart and put them back together again until every detail is clear in their minds. These zone service representatives then return to their field offices where the knowledge they have gained at the factory is made available to dealers and their service managers or mechanics.

Salesmen Posted

Among other selling aids are timely information from the factory on market conditions and changes made at the plant or by competitors which help keep the dealer and his salesmen posted. This information is passed along through the medium of the Pontiac Chieftain, which is issued monthly. Stories of successful stunts or operations by other dealers and salesmen are thus made available for all dealers in the organization and a great part of the information contained in this publication is supplied by the dealers themselves. Then, too, the sales promotion department keeps an almost constant chain of sales contests running, the winners of which are awarded valuable prizes in money or merchandise.

Then there are accessories. As mentioned previously, the survey on 1934 operations by 803 dealers, which was conducted by NADA, revealed that this department netted the dealers reporting, a profit of $3,015,787 on a sales volume of $24,651,863 as compared with a net profit of $123,053 on $19,394,773 service volume, and a $7,733,736 net profit on new car operations. Thus the sale of accessories becomes the dealers' second largest source of profit. Recognizing this, Pontiac has established an elaborate accessory department at the factory which keeps in constant touch with accessory buying trends and accessory innovations. This department relieves the dealer of much market research work and makes available to him a complete line of approved accessories with known public appeal and at attractive discounts. This centralization also offers an advantage, in that accessories thus offered are designed to harmonize with other Pontiac features of design and appearance and simplifies installation. The accessory and equipment packs are conveniently arranged and priced to cover a wide market.

Will Junk 10,000 Cars

Under its newly announced factory junking plan Pontiac this year expects to aid its dealer in removing from the road some 10,000 vehicles, which from age or abuse have become a menace on the highways. This plan will be under the supervision of factory district managers and has been set up for January and February. During that period dealers will be paid $20 per car for each car which is definitely and permanently put out of existence.

A program of this sort requires much research and development. It requires a broad view from the standpoint of the dealer, factory and the public. It is because of this program that Harry Klingler looks forward to 1936 with such optimism, and predicts a sharp increase in sales for Pontiac during the coming year. Let us tune in on Mr. Klingler at his desk in Pontiac and hear what he has to say of his plans and anticipation.

Gentlemen, Mr. Klingler speaking:

"This industry of ours seems to be one of never ending surprises and thrills. The year that has just ended is no exception. And I predict that it will continue to blaze new trails in 1936 as it has in the past.

Foremost Example

"We have been the country's foremost example of individualism. Through the efforts of its leaders this industry has given wage-earners new and higher standards of income and living, and contributed more than any other human force to the development of our mechanical knowledge and skill.

"From 1930 to 1935 automotive management was busy trimming sail . . . cutting expenses, although the mechanical improvements of its products were the greatest of any similar period in its history. The result has been higher values than ever before

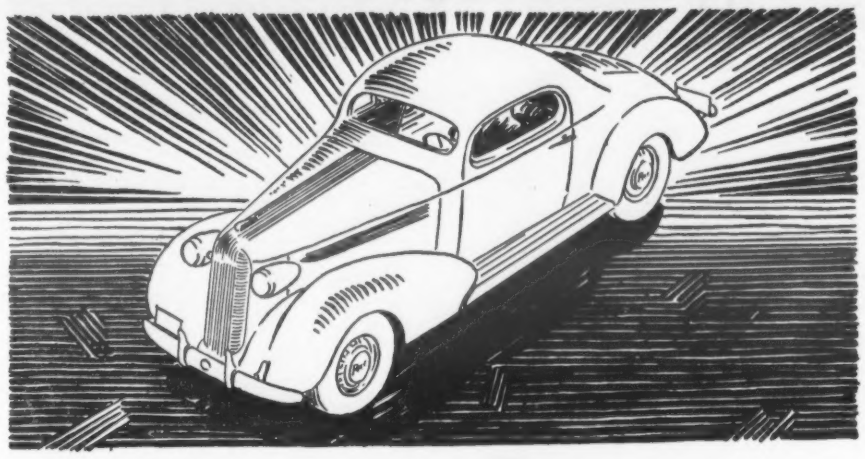
"Now business has taken such a reversal there is danger of going overboard again with optimism. Undoubtedly, the industry will show an increase in 1936 over 1935. Last year was ahead of every other year except 1929. This year may outstrip even that record holder. It will benefit immensely from the increased business it has given in the form of purchases and labor to other businesses which supply its needs. It is a case of 'bread cast on the waters' coming back many fold.

"Pontiac expects to produce 50 per cent more cars this year than it did in 1935. We had 7,000 persons on our payroll last year compared with 4,200 the year before. The 1935 payroll was over $10,610,000.

"In 1934 we manufactured 80,000 cars. We set the goal for 1935 at double that figure, a goal which we exceeded in a production of 181,000 cars last year.

"We have tried to lay good plans in our business. We believe we are building soundly, trying to make a good product. Good cars are making good friends for Pontiac. Production problems have been mastered. Our success and the success of our employes and business interests now depend upon the extent to which

(*Continued on Page* 47, *Col.* 1)



HATS OFF TO PROGRESS

It has been a pleasure to work with the production engineers of the Pontiac organization.

Today you will find scores of Cincinnati machines in the Pontiac plant, working to exacting limits, producing quicker and at a lower unit cost. Leaders like Pontiac in the *automotive industry* have benefited and look to us for cost reducing and quality producing milling and grinding machines.

This year we present an up-to-date line of milling, grinding, lapping and broaching machines to meet the automotive industry's (others too) requirements. We invite you to call our representatives in Detroit (and elsewhere). They will give you *dependable counsel on milling and grinding.*

THE CINCINNATI MILLING MACHINE CO.
CINCINNATI GRINDERS INCORPORATED
CINCINNATI, OHIO, U. S. A.

★

Rock River Broadcloth

★

Looks Better Wears Better
Feels Better Is Better

★

The fine wool broadcloth used in some of the Pontiac models in both the cushions and body trim is made by the Rock River Woolen Mills, one of America's oldest and foremost institutions specializing on quality material. Established in 1849, this mill through the years has earned an enviable reputation for both the product it makes and the service it renders.

★

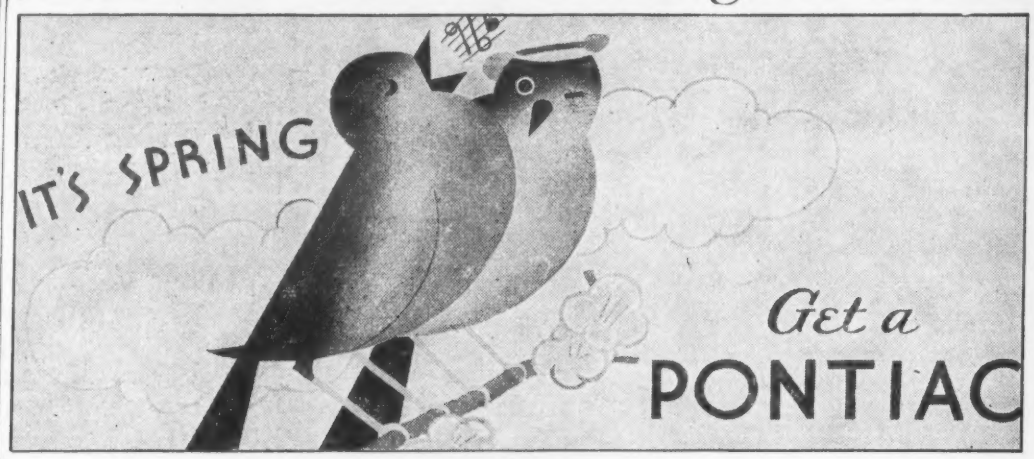
ROCK RIVER WOOLEN MILLS

JANESVILLE WISCONSIN

★

DETROIT OFFICE - 303 C. P. A. BUILDING

Pontiac's Prizewinning Posters



Pontiac Ad Campaigns Use Every Type of Media

(*Continued from Page* 31)

5,000 newspapers carried Pontiac copy regularly, as permitted by the dealer's local fund on any given month.

Part of this appropriation also goes into outdoor boards over the dealer's signature in his zone of influence. A number of boards designed for this specific purpose won national recognition.

In 1932 the well-remembered "Robin" board, with the copy, "It's Spring, Get a Pontiac," took first prize in the third annual exhibit of outdoor advertising art sponsored by the advertising council of the Chicago Assn. of Commerce. The following year honorable mention in the same exhibit went to the Pontiac board featuring economy, and picturing a Scotchman's head, while in 1934 Pontiac again took first place with its "So much more for so little more."

Prizes also have gone to direct mail campaigns designed in the interest of the car, and thousands of requests have come in for reproductions of advertising illustrations used in magazines.

Uses Trade Papers

As an example of the volume of material prepared as dealer aids, a check reveals that between 70,000,000 and 75,000,000 pieces of Pontiac literature have been mailed out since 1926.

The management of the company has been a consistent believer in the automotive trade paper as a vital factor in the industry, and has, from the very first, been a large user of that type of media.

When radio came into prominence as an advertising medium, one of the early companies to go on the air with an elaborate weekly program was Pontiac. Among the artists sponsored by the company were Paul Whiteman's band, Colonel Stoopnagle & Bud, Jane Froman with the Modern Choir, and others. At present no national program is being presented, but spot broadcasts are used where dealers so desire.

Today the great bulk of the annual appropriation goes into three media—the newspaper, the national magazine and the outdoor board. A higher percentage of the total goes into these three outlets than was the case for some years past.

Schedules Large

Present trade paper schedules are also the largest in many years. If there is one dominant feature of current advertising practice at Pontiac, it is the close supervision over departmental activity as exercised by the management. Both President Klingler and Sales Manager Gilpin pass upon practically every Pontiac advertisement before it sees print. They attend conferences and take part in discussions, thus bringing to Pontiac advertising the best thought of the minds guiding the destiny of the company.

The net result is a balanced program keyed exactly to the thinking and to the current needs of the organization.

Old Time Dealer Sells 17th Car to Rancher Pal

Nath Jones, head of the Pawhuska, Okla., Pontiac dealership bearing his name, recently delivered his 17th car, a four-door touring sedan, to Lee Perrier, prominent rancher and youthful pal of the dealer.

Twenty-six years ago the two worked together on the original Perrier ranch on Candy Creek in Osage county, where a pony was their chief mode of transportation. They learned to ride, rope and brand cattle when youths, and Perrier still tells how he saw Jones win $3,000 by roping and tying three goats in 60 seconds, a record no one has since bettered.

Nath Jones is the oldest automobile dealer in Osage county.

Pa. Dealer Has Had Pontiac Franchise Since 1908

Carl P. Longnecker First On Representatives' Roll

If there is a man longer on the roster as a dealer in Pontiac company products than Carl P. Longnecker, the records of Erie, Pa., fail to disclose who he is.

Continuously since April, 1908, less than one year after the formation of the old Oakland Motor Car Co., Longnecker has handled Oakland or Pontiac cars, or both.

He was 19 years old when he first signed an Oakland franchise, and he has made an annual habit of it since.

In that first year he was his own owner, salesman and service man. Today he employs 30 people.

Sold Seven Cars

That first year he sold seven cars. Today his organization has a reputation for averaging one new car a day. That first year, as his own mechanic, he sold $90 worth of replacement parts.

His banker estimates that Longnecker has paid over $10,000,000 into the factory for more than 4,500 new Pontiacs that have cleared through his establishment. In February, 1921 — and things weren't so hot then — he made a lump purchase of 61 new cars at the plant, and moved them all in a brief time.

The biggest year of the entire 27, from the standpoint of profits, was 1935, the year just closed. Longnecker realized that with the 1936 announcement coming in October, there could be a serious used car problem before spring, so he called in three used car dealers and sold his 55 used cars and started with a clean slate on announcement date.

He is sure he is ahead on the used car deal because one of the used car dealers had 22 of his cars left 60 days later, which he probably would have had if he had kept the cars. And it would have been necessary to mark them down considerably.

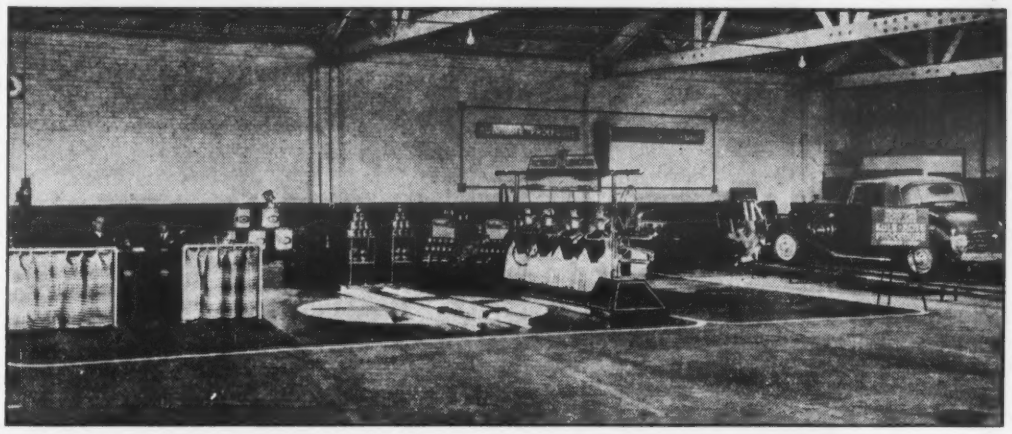
Longnecker has occupied only three locations in his 26 years, and only two other dealerships in Pennsylvania are as old or older than his.

Delivered Patrol

He delivered the first patrol wagon purchased by the Erie police department.

His firm has won many plaques and awards from the company, and he says he has always found factory co-operation of the highest type.

He regards his Pontiac franchise as invaluable, and says he most highly recommends it to anybody wanting to enter the business.



THIS IS NOT the lubitorium establishment maintained by Messrs. Oilem and Greasem, but lubrication problems are conquered here just the same. A general view of the lubrication department of the A. B. England Co., Pontiac dealers in Hollywood, Calif. Equipment is of the most modern with a hydraulic lift in the center.

Pontiac Needed 132% More Steel For 1935 Bodies

With production only 4 per cent below the 1929 total, the Fisher Body unit that produces bodies for the Pontiac line of sixes and eights in 1936 consumed 132 per cent more steel than it did in the last year of the post-war boom, Edward F. Fisher, general manager of General Motors' body-building division, has disclosed.

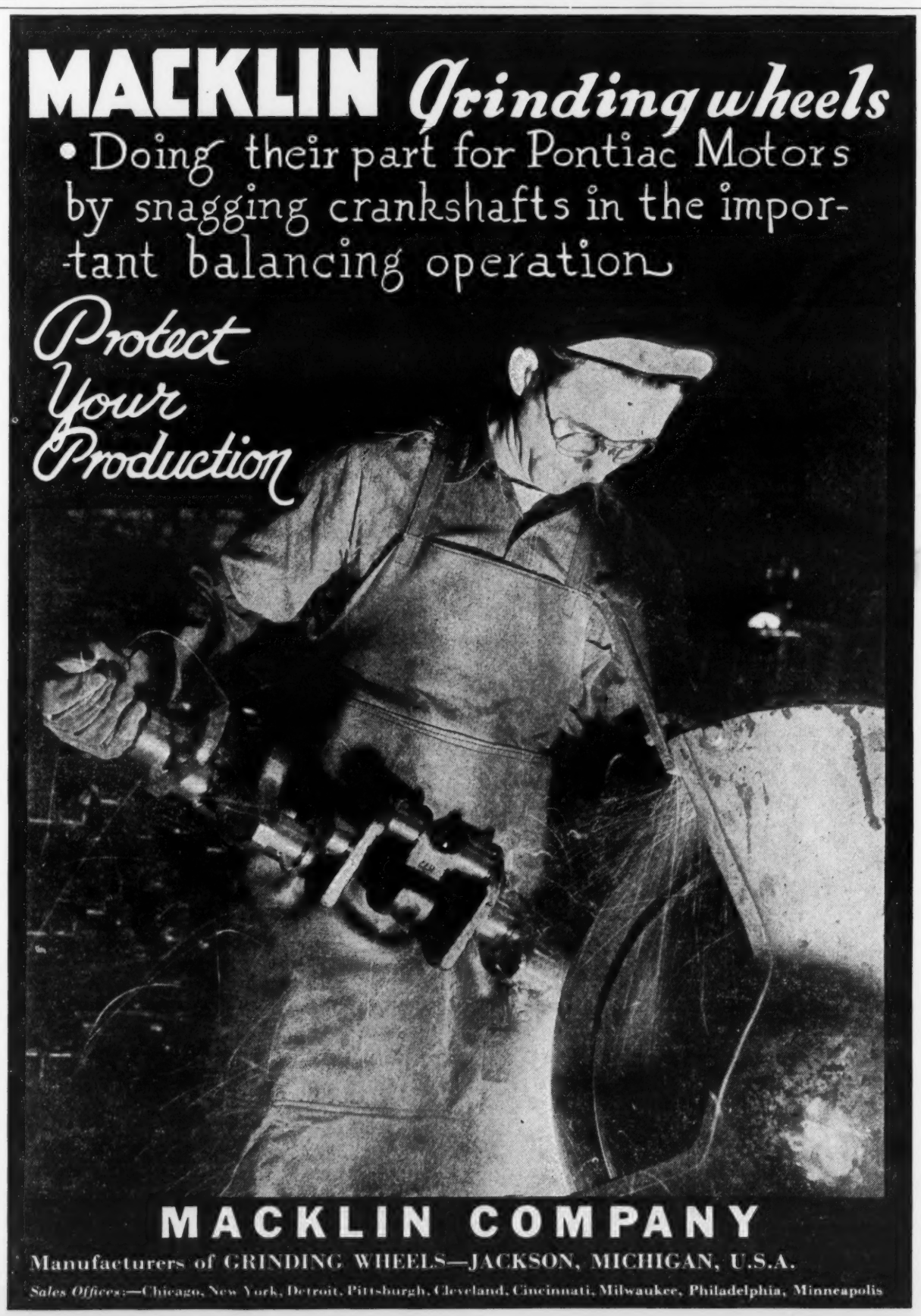
Production at the Pontiac, Mich., plant in the 12-month period ending Dec. 31 was 7,442 units under the 1929 record. Steel consumption at the same time showed a rise of 44,435 tons to a new high of 78,040. Operating at its present production schedule with a five-day week, it will be seen that the plant is absorbing more than 300 tons of steel in each working day.

Big Steel Increase

The tremendous increase in the percentage of steel consumption may be attributed in a large measure to the introduction of the "turrent top" type of construction, according to Fisher, who points out that the new bodies consist of but five main parts aside from the doors.

Aided Welfare

Pontiac's 1,000,000th car, built last summer, was presented to the local community chest to aid in raising funds for the welfare work in the home county of the company.


MACKLIN Grinding wheels
• Doing their part for Pontiac Motors by snagging crankshafts in the important balancing operation
Protect Your Production
MACKLIN COMPANY
Manufacturers of GRINDING WHEELS—JACKSON, MICHIGAN, U.S.A.
Sales Offices:—Chicago, New York, Detroit, Pittsburgh, Cleveland, Cincinnati, Milwaukee, Philadelphia, Minneapolis

McGean

Nickel Anodes and Plating Chemicals

Used by Pontiac to Dress Up and Attract

Play a prominent part in the beautiful finish of the 1936 Pontiac Cars . . .

The McGean Chemical Company
Republic Building Cleveland, Ohio

McGEAN CHEMICALS

10 YEARS

This being a special occasion, we feel justified in stepping out of our strong, "silent" role to stress the fact that Morse Timing Chains have been standard equipment on Pontiac cars ever since their introduction more than 10 years ago.

MORSE
SILENT CHAINS

MORE NEW PONTIAC OWNERS. Twenty-one of these midget silver streak models were given to children of Pontiac employes at the company's great Christmas party which was enjoyed by 7,000 of the youngsters.

No Pontiac Employes Went on Public Welfare

(*Continued from Page* 12)

come in tearful. And we have them bring in their wives and children."

The board members themselves investigate every application for help, pass on the merits of every case and administer the welfare fund. There isn't an executive of any description among them. Not a white collar man or even a foreman.

They meet once a month regularly and more often if special meetings are required. All meetings are on company time.

Investigate Cases

As stated in its by-laws, the object of the Welfare Assn. is "to assist any members (employe) in case of distress."

Two Welfare Board members constitute the committee which investigates all cases of distress.

The welfare fund, which the Board has at its disposal, was supplied from the 20 cents per man per month contribution that is made by all employes, plus an equal amount added to the fund by the Pontiac Motor Co.

Every man on the active payroll, or in other words, every bona fide employe, was eligible for assistance in case of need under the terms of the Welfare Association. A workman was classed as on the active payroll, even though he has been laid off without pay, until he has been off the job for one year and is not slated for re-hiring.

The welfare fund provided for assistance in the form of food, fuel and hospitalization which includes medical aid.

The food allowance for any employe and his family entitled to aid was one dollar per person in the family per week. Purchase orders on any grocer the employe may select, were authorized by the Board. Fuel bills were okehed by the association. As for medical aid, of course, there was no stipulated amount.

And for all this employe-controlled Good Samaritanism, there is no obligation on the part of the worker to repay any part of the amount of money that has been expended for his benefit and that of his family.

No activity in the entire plant ever has been taken more seriously than the work of the Welfare Board.

Distributes Money

During the between-season periods of the last few years, the Board frequently had to distribute thousands of dollars monthly. The biggest months were August and September of 1932 when the cost to the welfare fund was $9,584 and $8,700, respectively.

Total expenditures for the year 1932 was slightly over $50,000 while that for 1934 was $28,500. For 1935 it was much less.

"The members of our Welfare Board feel that they have been entrusted with a high honor in serving their fellow employes here at Pontiac," said Board Chairman Richard Kelley, acting as spokesman for the group. "Needless to say, there has been comparatively little welfare work in 1935, with employment as steady as it has been.

"Every deserving man and his family have been taken care of in times of distress. We never let an employe's family suffer when he is sick. Of course, there probably are a few chiselers out of a total of 5,500 on the payroll, but we have to take our chances with them. Our job is to see that our men are taken care of. And the job has been handled so that Pontiac workmen never are a burden to public charity.

Few Medical Cases

"After an employe, who has been receiving help, returns to his job, he is permitted to have one pay day before he is taken off the welfare. That is so he can get his feet back on the ground, so to speak.

"With practically every man on the active payroll working now to help produce more new Pontiacs, relief work virtually has stopped. The only employes obtaining assistance are two or three medical and hospitalization cases.

"In 1935 our expenditures for welfare were the lowest in years—due to the great popularity of our new car and the shortest lay-off period in years."

Klingler Clicked

H. J. Klingler was named president and general manager of the Pontiac Motor Co. Nov. 1, 1933, after serving for the three preceding years as sales manager for another division of General Motors, during which time the car under his sales jurisdiction led the industry in production and sales.

HAPPY FACES of 7,000 children of Pontiac employes who greeted Santa Claus in a great Christmas party given by the company. There was a seven-act stage show; 21 midget silver streak automobiles were given away and each child received candy and nuts from old Chris.

Pontiac Engineers Proud of Their Achievements

Exhaustive Tests Precede All New Motor Features

(*Continued from Page* 20)

Pontiac engines. Vibrations tear motors and bearings to pieces. Some engineers have adopted dampeners and other auxilliary devices to their engines to solve the problem.

Overcame Vibrations

Not so with Anibal. He found out that light castings, unbalanced reciprocating parts, unbalanced crank shafts and improper engine base and block designs were the factors which made an engine grunt at certain synchronized speeds. He overcomes these faults by the simplest of engineering methods. First he extended the block and upper case casting so that it reaches below the center of the crank shaft. This gives the engine a foundation and raises the position of the crank shaft so that short and accurately balanced connecting rods add a certain rigid construction found in no other motors. Then he added that ingeniously devised harmonic balancer for which Pontiac cars are noted which completely absorb the few minute vibrations that might develop, not through design or construction, but by slight errors in assembly. Pontiac cars owe their smoothness to common sense engineering.

Anibal further puts more pounds per motor in the Pontiac than any other car. His motor weight will run from 100 to 150 pounds more of mass. This additional material spread over the engine in the cylinder head, the cylinder block and other corelated parts makes the whole structure less flexible, less liable to distortion and makes for longer life. These basic principles have been constant since the first Pontiac car was produced. Certain refinements, as a result of proving ground tests and study are made from year to year as advancing study in metallurgy shows to be worthy of adoption, are added but fundamentally the idea of mass predominates in the Anibal scheme of engines.

Cross-Flow Radiator

Contributing to Pontiac success has been the cross flow radiator which Anibal introduced in 1928. In this construction water is carried from side to side in the radiator instead of downward as in the conventional radiator. Its effectiveness in combination with the large spaces in the water jackets and around the valve, thus insuring a constant stream of cooling water throughout the entire system, is best shown by indicator cards showing that 2,500 gallons of water or approximately 10 tons of cooling fluid pass through the system in an hour if the car itself is making 60 miles per hour. The cross flow radiator is also an economical factor for the car owner, using less water because the empty or upper part of the radiator acts as a trap and condensor for water or anti-freeze solution turning the vapor back into water or the anti-freeze solution back into its natural state.

Notably among the modern day features of the Pontiac car as worked out and developed by Anibal and his engineering staff are bearings and lubrication. New and exclusive cadmium and silver alloy bearings for the engine have had the first call. The new bearing in Pontiac are longer lived. They resist heat to an unusual degree. Silver with a melting point of 410 degrees as compared with the conventional babbitt bearings with melting points around 410 degrees gives the new Pontiac bearings something that can easily be classified as one of the hidden values in engine construction. Owners Pontiac service laboratories is another common sense development. The tendency for closer tolerances in the cylinders and bearings of the modern engines to insure the quietness of engine operation wanted by the car owner as well as for longer life wanted by the engineers presented a lubricating problem. Oil, regardless of its brand, has a certain body. Using heavy oil in engines with decreased tolerances, it was obvious that something had to wear enough to permit the oil to get to the parts that needed lubrication. Heavy oils could not enter the spaces with the result that parts worn eventually to a point where the oil could enter to do its work, set up noises objectional to the car owner. The lighter oil solves the problem.

Anibal's engineering staff added still another feature, that of the metered flow lubrication system which controls the flow of oil under all conditions of temperature and effort on the part of the motor, to the bearings and cylinder walls. This idea was recently adopted by a car in the higher priced bracket and is destined to be adopted by others in the near future.

New Starter Feature

In the 1936 series Pontiac's Anibal and his staff have incorporated again something new. It is a new electric starter with the unique feature of continuing to operate until all the cylinders are firing regularly. This has been accomplished by increasing the number of poles in the starting motor and increasing thereby the cranking torque ability by better than 25 per cent. In the older starters the starting gears would unmesh upon the firing of any one cylinder. The new starter "stays with" the motor until every cylinder fires regularly and develops speed.

The new Pontiacs have another feature which attests to Anibal's engineering ability. Anibal has mounted the brake and clutch pedals on the frame so they will not be affected by any movement of the engine or the transmission. The car operator has already sensed this mechanical change as an important one for when driving he no longer is annoyed by vibrating pedals.

The Pontiac car is Anibal and his engineers, and nowhere is there to be found a car which because of its inherent simplicity and rugged construction offers salesmen so many talking points, points which the average salesman can understand and translate so easily into his selling talk.

300 GRINDING OPERATIONS
in the Modern Automobile...
300 Grinding Operations
with NORTON WHEELS
THAT'S the estimate—the grinding operations necessary in producing the many parts and mechanisms that make the car. For each and every one of them there is a Norton Wheel—a wheel exactly suited for its particular task—whether it be crankshaft, camshaft, centerless, internal, surface, tool or any other type of grinding. There's a variety of Norton abrasives, bonds and structures to choose from—and Norton service to help you.
NORTON COMPANY
Worcester, Mass.
NORTON ABRASIVES

Keeping Pace with Pontiac!

CITIES SERVICE

If it's CITIES SERVICE . . .
It has to be good.

CITIES SERVICE OIL COMPANY

The Brewer-Titchener Corporation
Cortland, New York

Drop Forgings
Machined and Rough
(Alloy and Carbon Steels)

•

Stampings
Light and Medium
Finished and Plain

•

Lethermet Upholstery Nails

•

Louis B. Auger
2988 East Grand Blvd. Detroit, Mich.
Telephone MAdison 5970-71

Gilpin Doctrine Toward Dealer One of Good Will

(*Continued from Page 5*)

and economy. The car commands an exceptionally high trade-in value in its price class. Since we were aiming at the quality market, based on an appeal to style and vanity, the obvious thing was to concentrate on appearance.

"Our engineers kept appearance constantly in mind in the design of the 1935 Pontiac which has been still further impressed in 1936. They tried for something unusual but not startling, something that would be as distinguishable on the highways for its good looks as it was exceptional for its infrequent stops at gas stations and repair shops.

"There is, of course, no way to gauge public taste in advance. But we set as our goal something different in the way of exteriors. Out of that effort came the 'Silver Streak.' We feel inordinately proud of it.

"The public seems to think that our engineers achieved their goal, since 'It's the most beautiful thing on wheels' is a frequently heard description. But we at Pontiac, while we tried to engineer appearance into the car, realize that we could do no more than gamble on the public reaction. That we played a winner is sheer good luck.

Many Hidden Values

"The engineers have gone farther than mere size and appearance to justify the price spread between Pontiac and the cheapest cars. They have added many 'hidden values' not obvious to the purchaser, but tremendous factors in the sum total of car enjoyment. Chief Engineer Ben Anibal is a stickler for details.

"For example, in the gasoline filler tube they inserted an inverted coiled spring which prevents theft of gas by siphoning it out. Near the top of that tube is a vent pipe with its outlet rearward, which draws off the fumes of gas churning in the tank and prevents them from 'boiling' up into the body of the car. That pipe also allows the filler cap to be placed on airtight so that overflow gas will not smudge the fender.

"The gasoline feed line runs forward along the frame opposite to the muffler to prevent vapor lock. Jack pads on either end of the frame make possible jacking up the car for a tire change without inconvenience. Every moving part of the chassis is sealed against dirt. Bearings are silver-alloy for extreme durability. The triple-sealed hydraulic brakes are the best money can buy.

Add to Cost

"All these things add to the cost of manufacture, but they are premiums paid against future sales insurance. They ought to return dividends, not only for the duration of the 'three-year plan,' but for some years to come.

"All of our thinking has been along the line of where we will be next year, and the year after that, rather than what the next 10-day report will show. We believe, if we plan sanely and soundly for the future, that next month's sales are likely to be satisfactory.

"It is, as mentioned before, our good fortune that the public has liked last year's and this year's models.

"Our plant has operated close to capacity in 1935. Last year output passed 181,000 cars. This year's goal calls for a material increase. Last year General Motors authorized the expenditure of more than $3,000,000 for the enlargement of Pontiac car output for this year. Most of this money went toward an increase in body production in the Fisher-Pontiac plant, and the remainder into the car manufacturing division. This expansion has increased our capacity which is assurance that dealers will not have to worry about inability to make deliveries on time.

"We should establish a new high for Pontiac in 1936, which will mean utilizing the productive capacity of the plant, and—which is more important—will mean keeping faith with loyal dealers and with that exceptional group of plant employes whose work has made Pontiac the outstanding car it is."

CERTIFICATE OF MERIT awarded more than 1,200 Pontiac dealers for selling two or more times as many new cars in 1935 as in the previous year.

Klingler Knows His Men And Puts Faith in Them

(*Continued from Page 9*)

kindness goes a story of his first meeting with his Works Council (the company union) . . . a story of how those 12 men surrounded him after the hour and a half meeting and pleaded with him to call a general meeting of the whole shop, and how they told him that if he would talk to the entire shop organization as he had talked to them, they would guarantee him that never would there be a minute's labor trouble at the Pontiac Motor Co. He didn't call a general meeting but told the Works Council that was their job . . . that if he did it he would be the Works Council. There were frequent meetings between the Works Council and the Big Boss after that, and there has been a minimum of labor trouble at Pontiac.

City Likes Him

Klingler has "sold" the Pontiac Motor Co. to the city of Pontiac. Had a 1,000,000th car celebration, open house for the whole citizenry to inspect the plant, annual company picnics for employes and their families, a Christmas celebration for 7,000 children of company workmen. The city of Pontiac is a friend of Harry Klingler and he is a friend of theirs.

Like "Hurry-Up" Fielding H. Yost who for 35 years has made the building of young men the biggest part of the job of building winning football teams, Harry J. Klingler is one industrial "coach" who has made the building of men in business the biggest part of building winning motor car companies. He is a builder-upper.

Dealers Aid In Drives to Teach Good Driving

Furthering the cause of greater highway safety by aiding in local movements directed toward this end is proving a good will builder for Pontiac dealers now engaged in such promotion.

Most favored of safety activities is that of loaning cars to police or traffic experts for instruction in proper driving practice.

Recently Joe Calhoun, Charlestown, W. Va., Pontiac dealer, awoke to the possibilities in safety promotion ahead of competition, loaned a cabriolet to local authorities for instruction in proper and improper car handling in traffic.

At Flint, Mich., a Pontiac loaned by the Central Pontiac Co. is being used to the same end. At San Antonio, Col. Arthur B. Hickox, director of the National Safety Crusaders, is using a Pontiac while working with local police authorities in advancement of safety education.

The DuBois Motor Co., exclusive Portland, Ore., dealers, got wide newspaper publicity by having local police traffic experts come in to their new service station and inspect the Weaver wheel-aligning equipment.

Many other tie-ups may be arranged by adapting programs to fit local conditions.

Tom-Tom

(*Continued from Page 3*)

L. Gilpin, his sales manager, and the latter's two assistants, Don Bathrick and Cece Simpson. Force of habit makes me call Gilpin "Doc," for I have known him since he first broke into the automobile business under Tom Hay, when the latter was running the Ford branch in Chicago as far back as 1905.

Gilpin, to my mind, is the ideal type of sales manager—years of experience which have taught him the tricks of the trade, which he learned in the service of Ford and Chevrolet before he came on his present job; a widespread acquaintance among dealers from coast to coast and from Canada to the Rio Grande and a man who studies his market like a broker does the ticker tape.

Bathrick and Simpson, though younger, are cut off the same piece of cloth. Bathrick has been with Chevrolet and later B-O-P, while Simpson holds the southwest in the hollow of his hand. It's his kingdom. He's always been in the field up to now, but he is said to have taken to the home office like the proverbial duck to water.

* * *

BUT LET'S GO back to Klingler and study his record at Pontiac. Two years ago he climbed onto the throne with an inherited model with which to do business. It took him a year to get the feel of the job and then he fathered the Pontiac of 1935. That was HIS. And see what he did with it—produced 181,000 as against 80,000 in '34, the previous administration's car! He had the foresight to take up the "Silver Streak," which identifies the Pontiac and has made it the easiest recognized of any of the identifying features among the American cars.

* * *

KLINGLER STARTS in on '36 with a terrific increase of "exclusive" new dealers. He has not only replaced the weak ones in his dealership, but is adding "exclusives" in territory which hitherto has not been covered. His production ought to show a considerable increase over '35, and, altogether, it looks as if Klingler & Co. ought to cause a lot of fluttering in Pontiac's price class dove cote.

30 Miles of Mohair Thread Required for Pontiac Car

Thirty miles of mohair thread is required to produce sufficient fabric to upholster one Pontiac five-passenger car, though only about 15 square yards of finished goods are used in all.

In this lies the explanation of the comfort, the durability and the beauty of the mohair upholstery found in the 1936 Pontiac sixes and eights, for the quality of this type of cloth is dependent in a large measure upon closeness of the tiny pile fibres.

By performing a simple mathematical calculation, it will be seen that more than eight feet of mohair thread is used in producing one square inch of the finished material, with the result that literally tens of thousands of the fibres are jammed in, one next to the other.

Cleans Easily

Of special interest to the housewife is the fact that the material is easily cleaned, since the surface has a tendency to break up spots and stains, preventing foreign substances from reaching the base and making their removal a simple matter, particularly when it is known that the fabric can be washed safely with frothy soap suds.

Other advantages claimed for mohair velvet over other types of material include the fact that it is pleasing to the touch, causes less shine and wear on clothes, and is the longest wearing upholstery fabric known, assuring the owner of a better re-sale value when he wants to trade in his car.

The weaving of mohair velvets is novel. Instead of one, two pieces of fabric are woven face to face at the same time. This is accomplished by placing the two sets of criss-crossed fibres forming the foundation one above the other. They are connected in manufacture by a fifth set that is woven through and at right angles to them. As this double material comes through the loom, a razorlike knife flies back and forth, cutting the two pieces apart and giving each its soft pile surface.

Lawn-Mower Trim

The completed fabrics are then dyed. After dyeing, they are "finished." In this operation a huge lawn-mower-like device trims the pile to an even height, giving the velvet its smooth, tailored appearance.

Fisher Body, the division of General Motors that builds bodies for the Pontiac sixes and eights, is the world's largest purchaser of automobile upholstery, and uses the finest quality of mohair velvets and flat fabrics that can be obtained. The high quality of the Pontiac upholstery is due to the careful selection of the raw materials, the scientific transformation of these materials into finished fabrics, and their skillful installation in the bodies.

Sightless Men Choose Pontiac In Unique Test

Recently, by means of an ingenious test, conducted in a number of the larger southern cities, it was shown that even a "blind man" could tell when he was in a Pontiac. In these tests two Pontiacs and five cars in Pontiac's price class were used.

The Pontiacs were a de luxe six and a master six. In one city 28 men were blindfolded, and in groups of four they rode in each of the seven cars. They were given instructions to concentrate on the riding qualities, performance, smoothness of operation and quietness of the engine of each car in which they rode.

The cars were designated by number and at the end of the test these men were asked to decide by number which car gave the most comfort, the best ride and the best all around performance.

In every case these men, while still blindfolded, unknowingly voted that the Pontiac de luxe six was by far "the car." The Pontiac master six was second in their choice and the other cars were eliminated—undeniable proof that Pontiac's performance and comfort are readily apparent even to a person deprived of visual means of comparison.

In one southern city the sight of so many blindfolded persons being put into cars prompted one public spirited person to call the police, and before long a large crowd was milling around the cars used in the test.

In another city the test was being conducted in the colored district. Once again the police were called, some bystander having thought that there was a race riot. Situations of this nature may not happen in every case but, wherever these tests are held, public interest runs high.

L. A. YOUNG SPRING AND WIRE CORP.
DETROIT, MICHIGAN

Manufacturers of

Automobile Cushion Springs

Mechanical Springs of all Kinds

Control Rods

and

Diversified Wire Products

"A Pontiac and Oakland Source for Twenty Years"

OAKLAND, CALIF. WINDSOR, ONT. CHICAGO, ILL.

ACCURATE TOLERANCES USING NATCO EQUIPMENT

Extremely accurate operations are performed rapidly on Pontiac cylinder blocks with NATCO Drilling, Boring and Tapping Production Machinery

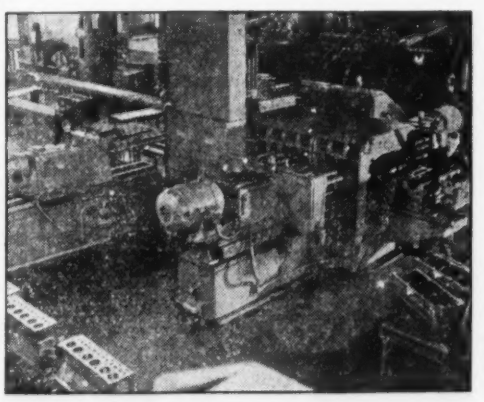


Figure 1

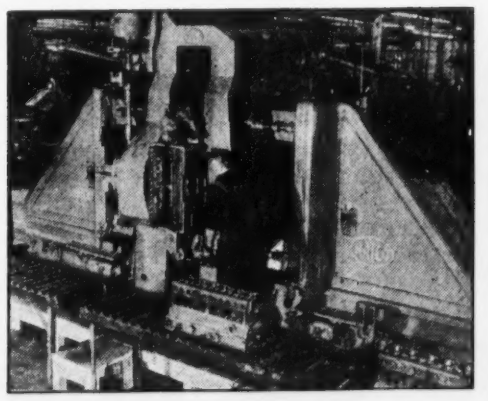


Figure 2

In the "line" at Pontiac are many NATCO multiple operation machines. Two of these are shown. One (Fig. 1) is a large two-way four headed NATCO which is built of NATCO HOLE-UNITS and a seven position automatic straight line indexing fixture. The fixture is arranged to hold two cylinder blocks in each position and as they traverse from one position to another down through the machine, a total of 35 operations of core-drilling, c'boring, chamfering, rough boring and semi-finish boring are performed on the cam and crankbores, and welch plug holes. Production that can be maintained is 75 blocks per hour—accuracy within split thousandths.

The other (Fig. 2) is a two-way four-headed combination drilling and tapping machine. It is arranged with a five-position automatic indexing trunnion type fixture arranged to hold one cylinder block in each position. This machine is performing a total of 20 operations of drilling, counterboring, chamfering, reaming, facing and tapping on the distributor shaft and oil pump shaft hole. A production of 50 blocks per hour can be maintained.

These two machines are good examples of the ability of NATCO to provide equipment for accurate high production work. Let our engineers make a survey of your work and make their recommendations.

Detroit Sales Office, 409 New Center Bldg. Chicago Sales Office, 2009 Engineering Bldg.

THE NATIONAL AUTOMATIC TOOL CO.
RICHMOND, INDIANA

★ ★

The distinguished position attained by the Pontiac Motor Company in the brief span of ten years is an outstanding example of the dynamic resourcefulness which characterizes the automotive industry. We are proud of the part which Weirton products have played in Pontiac's success. ★ ★ ★ ★ ★

WEIRTON STEEL COMPANY

WEIRTON · WEST VIRGINIA

WEIRTON STEEL

★ ★ ★ ★ ★ UNIT OF NATIONAL STEEL ★ ★ ★ ★ ★

Further Proof of Pontiac Dependability

The Pontiac Motor Company has again standardized on Briggs & Stratton Pick-Proof Locking Equipment for every purpose from ignition to trunk.

This Locking Equipment is standard on most fine cars.

☆

BRIGGS & STRATTON CORP.

MILWAUKEE, WISCONSIN

Engineering Cost Cuts Deeply

It is difficult to estimate closely the money that is spent each year for engineering to keep Pontiac design constantly in the lead. To go into detail would be to cover every feature that Pontiac has pioneered and perfected. But an account of those features is found elsewhere in this 10th Anniversary edition.

During the last 10 years Pontiac Motor Co.'s own engineering development expense was well over $8,000,000. At least another four to five million dollars have been spent in that time on Pontiac design by the General Motors Research division, the Proving Grounds, Fisher Body Corp. and other General Motors divisions that supply parts such as generators, starting motors, batteries, spark plugs, hardware, etc. And all of these millions do not account for the engineering development work of scores of outside suppliers.

Many Tests

The above sums include research, design, development, experimental work, laboratory and road testing, building engines, transmissions, axles, frames, brakes and dozens of other units, as well as complete experimental test cars.

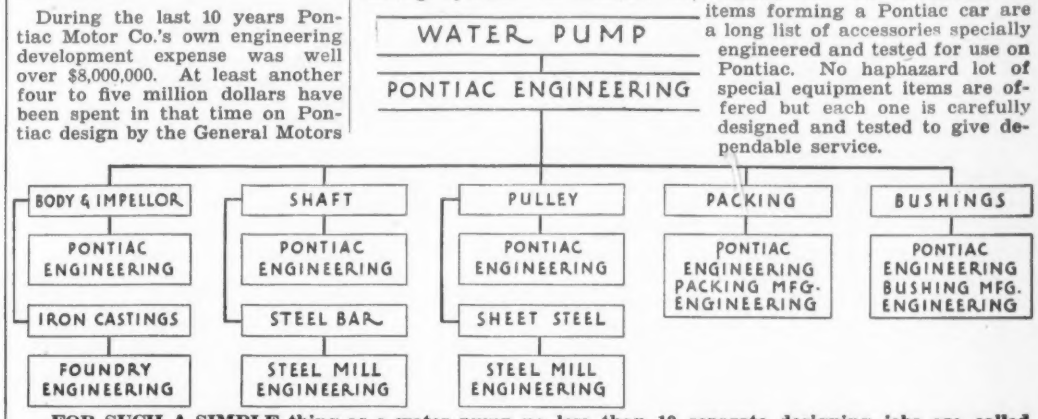
Listing only the more important parts that have to be designed and tested, we find: cylinder block, cylinder head, crankshaft, camshaft, connecting rods, pistons, valves and valve gear, manifolds, water pump, oil pump, gas pump, carburetor, distributor, starting motor, generator, thermostats, bearings, harmonic balancer, clutch, transmission, synchronizers, axles, wheels, tires, brakes, steering gear, muffler, gas tank, radiator, fenders, hood, running board, body ventilators, cushions, instruments, horn, lamps, battery, frame, springs, spring shackles, shock absorbers, stabilizers, etc., etc.

Trifles Costly

Some of the trifles which consume much time, effort and money in engineering are, to mention only a few: hub caps, interior hardware, controls, license tag brackets, exhaust and tail pipes, muffler mountings, engine mountings, radiator ornaments, spark plugs, automatic choke, gasoline tank gauge, gaskets, oils, greases, lacquers, paints and rustproofing.

As an example of the ramifications of co-ordinated engineering effort utilized in the development of a single unit, consider the cooling system. It consists of radiator, water pump, thermostat, engine water jackets, water distributing tube, hose and clamps. The accompanying charts give some idea of the almost endless number of engineers of a score or more of companies who play a necessary part in the design of the cooling system.

Added to the thousands of items forming a Pontiac car are a long list of accessories specially engineered and tested for use on Pontiac. No haphazard lot of special equipment items are offered but each one is carefully designed and tested to give dependable service.



FOR SUCH A SIMPLE thing as a water pump no less than 10 separate designing jobs are called for from Pontiac engineers, as well as the designers of steel mills, foundries, packing and bushing manufacturers.

Chief Pontiac Portrait Paid for With Pennies

(*Continued from Page 5*)

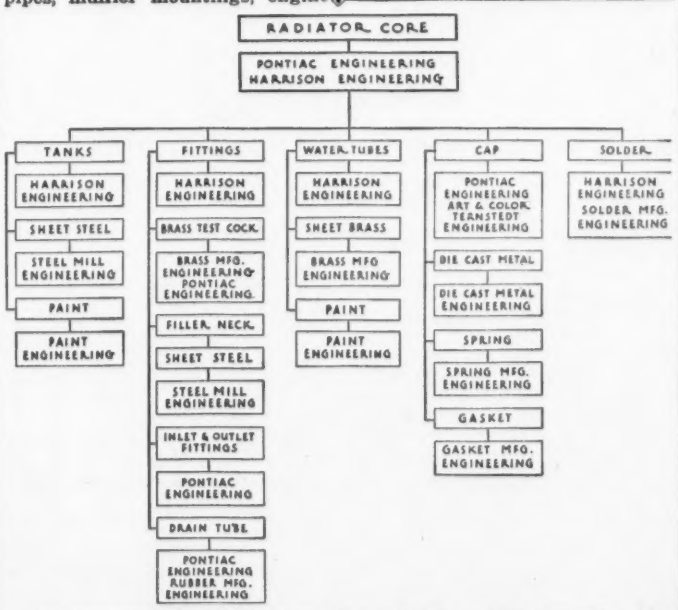
learning that the French had been defeated in Canada, consented to the surrender to the British and was the means of preventing an attack on the latter by a body of Indians on the Detroit River.

The headdress of moose skin with three black and white feathers was taken directly from a headdress at the Museum of the American Indian. In no circumstance was the artist permitted to use feathers or head dress in any other colors. The breech cloth, also, was taken from the object itself and is fortunately colorful and authentic. The tomahawk is very unusual in design and is typical of the Ottawa tribe.

Jerry Farnsworth is one of the outstanding portrait artists in the country. Invariably his work has character and distinction. His career has been interesting and he has received many valued awards for his canvasses.

He was born in Dalton, Ga., and was a pupil of Charles W. Hawthorne. He has won many Academy prizes as well as those of other leading societies and galleries.

He has painted portraits of Mrs. Roosevelt sr., Adolph Hitler, Haile Selassie and Bishop Perry of Rhode Island for "Time" magazine, and many distinguished business leaders and educators for "Fortune" magazine, as well as portraits for private collections and museums.



ENGINEERING DEVELOPMENT and design cost takes in a lot more than Pontiac's own engineering staff, as will be seen from the above chart showing the engineering necessary to design a radiator core.

Sales Doubled In 18 States, Reports Show

(*Continued from Page 3*)

total low price class per cent of increase, 34 per cent.

"In November, retail deliveries by dealers were 275 per cent greater than a year ago, or more than three and one-half times last year's sales (14,148 sales in November, 1935, as against 3,764 sales in November, 1934).

"Combining all the above data with indications for December, assures Pontiac of its 1935 objective of doubling the 1934 volume."

Regional Heads Held Monthly Meeting Jan. 15

The regular monthly meeting of Pontiac regional managers was held at the factory, Jan. 15. Managers attending were: V. L. Murray, of the Atlantic region; V. A. Davison, of the Southern region; A. A. Klein, of the Central region, and Allen Wright, of the Midwest region. Tom Ray, of the Pacific region, did not attend.

Each manager presented charts to the meeting outlining the principal activities of the zones under their jurisdiction.

Pontiac Wins Honors in Yosemite Economy Run

A Pontiac Six last Thursday won the 352-mile Yosemite Valley economy run for its price class, according to American Automobile Assn. officials who supervised the run.

The Pontiac's official gasoline consumption for this record-breaking performance was 23 9/10 miles per gallon.

Each year this economy run from Los Angeles to Yosemite Valley is sponsored by the Gilmore Oil Co.

Pontiac Levels Employment, Ends Long Idle Periods

(*Continued from Page* 39)

the cars can be sold in the field.

"The closing months of 1935 saw our industry experiencing a newer and still more pleasant thrill. It seemed almost paradoxical that the production and sales records of the last three months of the year should practically equal those of the first or second quarters of the year.

Employment Leveled

"What this means is that for the first time in the history of the industry year-around employment has been leveled off. The coming year should see the completion of the leveling off of employment and the straightening out of the sales curve. Fall auto shows and announcements have taken the 'red' out of many dealers' statements during the winter months.

"Without doubt the industry has given more weeks and months of steady employment to a larger number of men in 1935 than at any time since 1929 and perhaps at any time since its beginning.

"Employment at the close of the year was far above anything the industry had experienced before at that time. There were practically as many men on factory payrolls from September through December as there were during the previous record breaking months last spring.

"Since the announcement of the 1936 Pontiac cars in October our production sped along for the balance of the year at virtually the same volume level as it did during the spring months which heretofore have been thought of as peak months for production and sales. Employment was at the same high point. As a result Pontiac furnished more hours of employment in 1935 than in any other year since 1929 and it was spread out much more evenly.

No Idle Periods

"There were no extended periods of idleness anywhere in the industry last year. Shut-downs between models late in the summer were the shortest on record. And even then, as in our own case, where 40 per cent of the men on the maximum spring payroll were required during the in-between period, there was sufficient work to keep them busy re-tooling, cleaning up shop, moving stock, etc.

"In the same way production methods and problems have been straightened out. Last year we could have delivered thousands of more cars but we were not set up to turn them out. All that has been overcome.

"Our dealer organization is being improved and broadened daily. In fact, the motor car industry has made such strides of late that I again look for outside capital to be attracted to automobile dealerships as it was 10 years ago.

"Service, parts, accessories, sales promotion and advertising departments all are doing a more intelligent, practical and efficient job. And the increased satisfaction of owners is the reaction of the public.

Balance Attained

"There is unquestionably a better balance between all of the factors and elements of labor, engineering, production, announcement and show dates and other things that enter into the building and selling of an automobile than ever before. If this business can continue on the same even keel, which I believe is possible, then this industry will have made one of its greatest contributions to the motoring public and to the working man, the dealer and the stockholder in the creation of steady year-around employment, a more even sales volume and a more certain profit."

Klingler to Address Detroit Traffic Club

One of the most important meetings of railroad executives this year will be the Traffic Club of Detroit banquet at the Book-Cadillac Hotel, Tuesday, Jan. 28. Between 800 and 900 railroad men are expected to attend. It will be a national affair.

H. J. Klingler, president of Pontiac Motor Co., will deliver the principal address of the evening. The motor car industry is one of the railroads' biggest customers and transportation heads are eager to hear a message from one of motors' leaders.

At the speakers' table will be 24 presidents, chairmen of boards and operating vice-presidents of many of the country's most im- tant roads.

Berend on Trip

F. A. Berend, Pontiac's advertising manager, is on an extensive trip through the south and far west. Stopping at New Orleans first, he is continuing on to the coast where business will take him to Los Angeles, San Francisco, Portland and Seattle.

More than 1,200 Dealers Double Sales in 1935

(*Continued from Page* 3)

that pointed out by the zone at Oakland, Calif., but "some of our new accounts have shown outstanding performances as compared to anything done in their cities previously. Some of the notable examples are:

"Freeman and Love, Merced. These dealers were formerly service station operators and had never sold new cars before. They started with the Pontiac Silver Streak and, where the former dealer sold two cars in 1934, these boys, under the driving power of Gene Freeman, sold 78 through November this year;

"Daniels-Wells, Inc., Oakland. This account has shown outstanding performance in which George S. Daniels and Eb Wells have sold 354 cars through November as compared to the previous dealer who sold 66 for the entire 12 months last year;

"Fruitvale Motor Sales, Oakland. This account has sold 101 cars through November and there was no dealer in this section of Oakland last year."

Reports of a similar tenor have come from many other sections, and the complete roll of those deserving honorable mention for their 1935 selling achievements would take in practically the whole list of present Pontiac dealers. Another unusual record is that held by Mid-City Garage of Easton, Pa., who have sold more than 230 new Pontiacs since early in 1933 and, according to the zone report, "In all that time not one of those cars has been traded in to a competitor and the only Pontiac any dealer in Easton has had in his used car stock was taken from a New York owner by the Blank dealer because Mid-City would not allow the owner what he wanted for it on a new Pontiac.

"Mid-City Garage's price class in 1933 was 13.9, in 1934 it was 17.8 and through August this year, 15.6 in their entire territory and 23.5 in the City of Easton.

"They outsold our leading competitor 20 to 1 so far this year in the City of Easton."

We Grew Up

with the automobile industry

• From our presses came some of the first automobile catalogs. And through the years we have been constantly and closely associated with successful automotive advertisers, large and small.

We talk your language. We know your problems. Experience has taught us how to help you sell automobiles or automotive products to the public and how to help you sell materials, tools, equipment, and accessories to manufacturers and dealers.

First and foremost, we are an advertising-printing organization. But we are ably staffed and efficiently equipped to give you complete creative service.*

From order desk to shipping room, we are geared to your needs.

Consult us about your next catalog, mailing piece, sales promotion plan, or any advertising-printing. There will be no obligation on your part.

An anniversary we are proud to honor

Within a few short years, Pontiac has become one of the foremost names in the automobile industry. On street and highway, from coast to coast, and far beyond the boundaries of America, its Silver Streak is a symbol of smart styling and able performance.

It is fitting, therefore, to pause at this tenth anniversary to honor past accomplishment and to predict a still more brilliant future.

EVANS-WINTER-HEBB *INC.*, DETROIT

818 Hancock Avenue West • *New York Address:* 420 Lexington Avenue

* The Evans-Winter-Hebb organization has within itself both capable personnel and complete facilities for the preparation and production of printing, direct advertising, and other sales literature: Analysis and Plan • Copy • Design • Art • Photoengraving • Letterpress (flatbed and high-speed multicolor rotaries) and Offset Printing • Binding • Mailing

Since the day of the first Pontiac, Eaton has been privileged to supply many of the essential parts used in the construction and equipment of this finely built car. We appreciate such convincing evidence of the confidence the Pontiac organization places in Eaton Products.

•

EATON MANUFACTURING COMPANY

CLEVELAND, OHIO

EATON

EATON AXLES . . . CHASSIS LEAF SPRINGS . . . BUMPERS AND COIL SPRINGS . . . WILCOX-RICH VALVES . . . TAPPETS . . . VALVE SEAT RINGS . . . VALVE-A-MATIC HYDRAULIC LIFTERS . . . EATON DETROIT "METALBUILT" HUB CAPS . . . GAS TANK CAPS . . . STAMPINGS . . . EATON-ERB GREY IRON CASTINGS AND PERMANENT MOLD CASTINGS . . . RELIANCE SPRING WASHERS . . . PERFECTION HEATERS.

"Easy to read---'bout cars and men . . .
It fills your need---ADN!"

Every

PONTIAC

has a St. Clair adhesive used in bonding fabric to metal.

There's a St. Clair product built to meet every automotive adhesive problem.

Where materials must depend upon adhesives for bond, the St. Clair Rubber Company has a scientifically developed material that has been tested under production conditions to meet the requirement, economically and efficiently.

Let the chemists of St. Clair Laboratory solve your adhesive problems. The tougher those problems are the better they like it.

KANTLEAK
TRADE MARK

St. Clair Rubber Co.
440 Jefferson Ave. East — Detroit, Michigan

Detroit Wax Paper

Takes pride in being numbered among those firms who supply the quality products which enter into the construction of

Pontiac Motor Cars

•

Detroit Wax Paper Co.

Foundation and Insulation Boards

W. Pleasant Ave. Detroit

IN THE PROVING GROUND garage for a check up after one of those hour after hour and day after day grinds around the great concrete oval. That is where Pontiac dependability is proved.

A FLEET OF Pontiac test cars just outside the entrance of the Proving Ground where over 800,000 miles of test driving are run every year.

Stamina Tested on Proving Grounds As Pontiacs Grind on Day After Day

Proof of any pudding is in the eating. Proof of any motor car's durability is in miles of running.

That's why Pontiac's fame for durability has become widespread. Plenty of its own pudding is eaten before it is passed on to the public. In other words, the experimental division maintain a year around force of from 25 to 30 test drivers for the sole purpose of driving and checking new Pontiac cars on the General Motors Proving Ground at Milford, Mich.

These men are on the Pontiac payroll. They are divided into three shifts and gain their entire livelihood from the single occupation of piloting "silver streak" cars on varied tests eight hours a day, from five to seven days a week and 52 weeks a year.

Experimental division records of Pontiac for 1934 show that over 100 cars were used; that 888,822 miles of test driving were run on the Proving Ground and 278,914 miles off the Proving Ground, making the total number of "proof of the pudding" miles in that one year of 1,067,736.

Proving Ground Staff

W. H. Manning, assistant chief engineer of Pontiac Motor Co., is in charge of the experimental division. The Proving Ground staff assigned to Pontiac comes under his supervision. The staff consists of a supervisor on the Grounds, an office employe, a garage mechanic and the rest the crew who handle the driving and testing assignments.

Drivers work in three shifts. The first group drive from eight in the morning to 4 p.m., the second from four until midnight and the third from midnight until the return of the morning shift.

From five to 10 Pontiac cars are always on test, trying out some new part, assembly or process. Each car piles up an average of 25,000 miles in test work before being replaced, although some of them are driven up to 50,000 miles.

Rain, snow, thunder storms or sub-zero weather seldom cause a break in the daily routine of the testers. They drive their full eight hours at the speeds and exact circumstances ordered by the Pontiac engineering department.

'Tests are run by Pontiac drivers and engineers at the Proving Ground to cover durability, performance, economy, cooling, splash, brakes, axles, frames, steering, ride, engine mountings, bearings, carburetors, transmissions, engines, noises and mufflers.

Severe Tests Made

In addition to the tests run by the Pontiac staff, the Proving Ground itself conducts the following independent tests: acceleration in low gear, acceleration in intermediate gear, acceleration in high gear, gasoline economy, 7 per cent hill climb, 11 per cent hill climb, top speed, brakes hot, brakes cold, riding qualities on smooth pavement, gravel, rough pavement and the Belgian block road, steering gear, 10,000 mile durability, turning radius, frame distortion, horsepower at rear wheels at different speeds, flame travel in combustion chambers and 300-mile economy tests.

Outside of the Proving Ground tests, Pontiacs undergo several hundred thousand miles of testing away from the Proving Ground and generally with staff engineers at the wheel. Particularly is this true just before new models go into production. At that period, to insure a final checkup of the overall engineering improvements, at least two new production cars are started out in opposite directions bound for points from 1,500 to 2,000 miles distant. The cars are under the immediate observation of engineers over the toughest possible road assignments in the area through which they drive. Any slight change required to make the new model measure up to Pontiac standards, developed by these cross country tests, are made in production quickly.

Each winter, too, several cars are dispatched to Florida so that an unbroken year around test of the cooling system may be conducted.

The busiest time for Pontiac at the Proving Ground is just before a new model goes into production. Then a large fleet is put on test 24 hours a day and seven days a week to make sure that every new feature is correctly engineered before the cars start down the assembly line.

When design work on a new model has progressed far enough to warrant the building of a few experimental units, new engines, transmissions, clutches, axles, etc., are made up quickly. One or more of these units are assembled in the current model chassis and tested at the Proving Ground.

Then test drivers working in three eight-hour shifts pile up distance on these cars at the rate of 600 to 800 miles a day. By thus distributing the units among three or four test cars a better opinion may be formed as to the merits of each new assembly.

Different parts require different tests so that the nature of the part determines the kind of testing. Every test car has a specific assignment, testing one or more features. The engineer in charge of a new development determines at what speed the car shall be driven, over what type of road and for what mileage.

Case History Kept

At the conclusion of a test, the car is torn down, the parts under test are photographed for future reference and any failures catalogued. Necessary parts for a new engineering development are hand-built.

Development having to do with new connecting rods or bearings are tested at a constant speed of 75 miles per hour. Body tests are mostly run on the Belgian block road. New springing gets a thorough work-out at 40 or 50 miles per hour over continuous gravel, mud and cobblestone roads.

All kinds of road conditions at the Proving Ground make possible a wide variety of tests. A three-mile paved track banked at turns for speeds of 125 miles per hour is divided into five speed lanes, viz.: low speed, 40 m.p.h., 50 m.p.h., 60 m.p.h. and 70 m.p.h. and above.

There are north and south and east and west straightaways of

wide level concrete over one mile long. Hills have grades from 7 per cent to 24 per cent. There are twisting gravel roads, Belgian blocks, a mud road, a bath tub. In fact, almost any condition can be duplicated so that tests may be run under controlled conditions. Weather and altitude are the only factors that cannot be controlled. Dusty dirt roads, winding roads and stop streets are available.

Cooling Test Run

As an illustration of the mechanics of a road test consider a regular cooling test run at the Proving Ground.

The purpose of a cooling test is to establish the heat dissipating ability of the cooling system of a given car under conditions of level road operation and mountain climbing.

Any cooling development program has for its objective the development of a cooling system with heat-dissipating ability sufficient to handle the heat put into the cooling water by the engine under all conditions of operation and climate.

A cooling test may be made to get a qualitative measure of the effect of any one or a combination of the following elements: radiator grilles, hood louvres, engine side pans, fan, water pump and radiator core.

A car is selected for the test that is well broken in but without excessive mileage, because engine friction has a great effect on heat rejection to the cooling water. The mileage is between 2,000 and 10,000 miles. The engine is tuned to maximum performance, for experience has shown that the heat rejected to the cooling water is proportional to the power output in engines of identical design.

Now the engine is transferred to the dynamometer and a "heat rejection test" made. This test provides valuable information to the radiator engineers in showing just how many BTU's (British Thermal Units) are going into the cooling water. This test is run at wide open throttle and represents the maximum heat rejection of the engine throughout its speed range.

Next the engine is put back in the car and the necessary instruments for making a road cooling test are installed. These are quite simple and elementary in nature but are selected for extreme accuracy and reliability. Temperatures of the water entering and leaving the radiator and the temperature of the air behind the fan are measured with long distance dial thermometers graduated in one-half degree divisions. The bulbs of the water thermometers are immersed in wells inserted in the inlet and outlet hoses and are designed to add no restriction to the normal circulation of water. Atmospheric air temperature is read with a mercury thermometer on an extension putting the bulb three feet to the side of the car so that it is unaffected by the heat of the car and the bulb is shielded from the direct rays of the sun.

With thermometers installed the car is now ready to run a cooling test.

In running a cooling test it is necessary to find a road which will permit driving at any desired speed for any desired distance without interruption. The only place this is possible is on a Proving Ground with a continuous closed track. In order to determine the cooling under conditions of mountain climbing it is necessary to operate the car being tested under conditions of load and speed encountered in the mountains.

Towed Car a Drag

Since the topography of Michigan does not provide the grades desired, a specially adapted car, developed by Pontiac, is towed behind the test car, providing the drag or load equivalent to any mountain grade. It is literally a "Hill a Thousand Miles Long."

In order to secure data of engineering value, to compare with tests on previous models, the tests must be made under favorable weather conditions. Experience has shown that rain, wind, temperature and humidity have marked effects on car cooling. Therefore no tests are made in the rain, or when the humidity is very high, or when the wind velocity is so high as to vary the water temperature readings over 10 degrees Fahrenheit during a given run.

After waiting perhaps three or four days for suitable weather conditions the test is run. If it is a routine test to determine the general cooling characteristics of the car in question, readings are taken at 20, 30, 40 and 60 m.p.h. full load with the tow car, at 50, 60, 70, 80 car driving or "road" load and at maximum speed. The reason behind this selection of speeds is that the critical phases of car cooling as encountered in service are low-speed hill climbing and high speed level road operation. If the car will satisfy these conditions, it will be satisfactory under all other possible conditions.

Temperatures Recorded

The car is driven at each speed while the observer records the temperatures four times each lap of the track. This continues until all the temperatures at each reading station are within one-half of one degree for two successive laps. Then the test proceeds to the next speed and so on until the test is finished. The most important reading is the temperature of the water from the engine to the radiator, for this is the highest and shows how far the car is from boiling. The other temperatures furnish useful design information. For instance, the difference between water in and out of the engine is a measure of the water circulation rate and the restriction of the system, and the difference between atmospheric air and the air behind the fan is a measure of the air flow through the radiator grilles and the core and also the ease of exit of the air under the hood.

The final result of a cooling test is given in "air temperature to boil," which of course represents the highest atmospheric air temperature at which the car can be operated without boiling, obviously this is a "computed" rather than an "observed" temperature.

Test Data Valuable

As tests develop weaknesses, changes are made in the experimental parts and new tests rushed through. Engineers frequently drive these test cars. Their comments are noted carefully and added to the test data file.

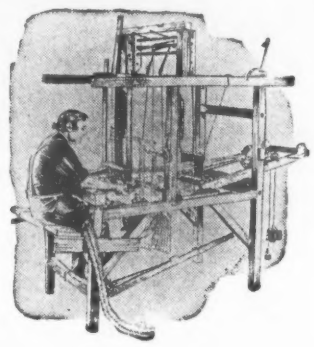
After much preliminary testing, changing and retesting, authority is given to build a number of complete new test cars incorporating all changes and improvements for the new model. These cars then run 24 hours a day on a general durability test on a test schedule known at the Proving Ground as No. 3.

It includes a little of every kind of driving—high speed, low speed, acceleration, changing of gears, brake application, steering tests around twisting roads, hills, gravel, dirt, dust, mud, Belgian blocks, etc. Frequently these cars are brought into the experimental garage at Pontiac Motor Co. and thoroughly inspected. Engineers, including the chief, ride the cars almost daily while their comments and criticisms are made a part of the records.

Further changes are made as tests uncover hidden imperfections until the staff is satisfied that the new car is okeh for production.

Even though the plant has been given an okeh to get material and start production, the test cars continue running at the Proving Ground.

As soon as the first production cars are built they are rushed to the Proving Ground and miles piled up rapidly—24 hours a day, day after day.



Since 1837

We have continuously manufactured the finest quality Coach and Automobile Trimmings.

Our congratulations to Pontiac, whom we have served for many years.

THE BRIDGEPORT FABRICS COACH LACE CO.

BRIDGEPORT

BRIDGEPORT · CONNECTICUT

"has kept pace with industry"

H. J. Klingler

"Automotive Daily News is to be congratulated on having kept pace with the industry it has served. It must be a source of satisfaction to you that under your ownership it has shown such steady progress in handling the news and views of the motor car industry."—H. J. Klingler, president and general manager Pontiac Motor Car Company

THE "RIDE"
IS IMPORTANT
TOO——

We are proud to share
in the building of the

PONTIAC

"The car built for 100,000 miles"

Pontiac springs-built by
Standard Steel not only
provide that easy "Ride"
but maintain the Pontiac
reputation for Quality.

The Standard Steel Spring Co.
Coraopolis, Pennsylvania

Detroit Office
12-254 General Motors Building

PONTIAC SPREADS itself in Boston. Each year on Washington's Birthday a band of "Pontiacan" Indians plays melodies in front of this "Pontiac Village," maintained by the Motor Car Co. of New England, Pontiac dealers in Boston. The dealer set-up is one of the largest and best equipped on Boston's Motor Row.

Intrepid New England Pioneer Band Founded Present City of Pontiac

(*Continued from Page 38*)

Detroit drove by way of Mt. Clemens, a wide detour, in order to approach the new locality.

In 1835 discussion was widespread for a permanent road linking Pontiac and Detroit. Some advocated a corduroy road consisting of poles and rails; some wanted a plank road, and others a turnpike. Still others held out for a road built of solid logs laid end to end. By 1842 two plank roads had been constructed out of Pontiac, one eight miles long toward Lapeer and the other toward Detroit as far as Birmingham.

Wider Woodward

This Birmingham road was the forerunner of the present Wider Woodward highway connecting Detroit and Pontiac, which is claimed to be the world's greatest super-highway, with two parallel roads each carrying five traffic lanes.

In 1842, the Detroit and Pontiac railway also had started building toward the town and a right-of-way was granted the line through the main street of Pontiac.

The forward march of the little village suffered a temporary setback in 1830 when fire reduced to a shell a large part of the business section.

The town quickly recovered from the disaster, however, so much so that it shortly had attained sufficient population to become incorporated as a city. This was authorized by an act of the state legislature dated Mar. 15, 1851.

By 1877 the corporate area of the town had expanded from the original limits of about one square mile to nearly eight square miles and the population was estimated at 4,000 people. All the advantages of the modern city of the time were Pontiac's, even to being on the summer route of a circus.

Commercial activities were varied, and the population, while it continued to grow, grew slowly until the close of the 19th century. Pontiac up to and through the gay 90's, like every other Michigan town, was pretty much of a sleepy village.

Then the automobile was born. And its birth drove the cobwebs from the idling town.

Had Buggy Plant

Back in 1907, E. M. Murphy, head of the Pontiac Buggy Co., decided there might be something in this horseless carriage idea after all. He organized the Oakland Motor Car Co.

Then the population of Pontiac was 12,726. Today the population is 57,122.

Back in 1907 the output of Oaklands was less than a thousand cars a year. This year the company will build in the neighborhood of 200,000 Pontiacs.

Back in 1907 Murphy employed a handful of men who built mostly by hand methods those first few cars. Today the Pontiac Motor Co. and affiliated Fisher Body plants employ thousands of men who turn out, with the finest precision machinery, cars that are infinitely better and priced much lower than those first units.

Today, instead of a sleepy village, with varied activities, Pontiac is a cosmopolitan town with 97 per cent of its entire output strictly automotive products.

This, then, is the manhood town grown from that lusty youngster village which Colonel Mack and his New England aides laid out more than a century ago. It is far different than the city which Colonel Mack may have had in mind, far beyond anything he could have imagined in those early days. But the ceaseless hum of productive machines, the virile quality of the place, make it worthy to commemorate a man and a people who dreamed well, and who set about to make their dreams come true.

Pretty Endurance Driver Tests Car

Front page publicity in the local press was obtained by Black Motor Co., Hazard, Ky., dealers, by engaging Joan Janess for a 100-hour endurance and economy drive in the new 1936 Silver Streak. Chained to the wheel, and checked by police officials, the young lady centered the attention of this entire community upon the stunt, and particularly upon the high mileage delivered by the 1936 models. Officials said they thought the stunt ideal for smaller communities.

Indiana Firm Opens Showroom in 24 Hours

Some kind of record for quick-opening businesses was set in Rushville, Ind., by the Marlin Motor Sales, newly appointed Pontiac dealers. This town had been without Pontiac representation for some time, mainly because no adequate building was available. The Marlin company, however, took the best one available, had signs erected and a going business under way all within 24 hours. They sold 10 Silver Streaks within a few days after the announcement.

PONTIAC HAS USED DAYTON FAN BELTS FOR MANY YEARS

AS ORIGINAL EQUIPMENT

● Dayton Fan Belts have been first in the original equipment field for 14 years . . . being used by 85% of all American makes of cars, including Pontiac.

● This is because Daytons are different in construction and in performance. Because of exclusive patented features they require less tension, are easier on bearings—run cooler and last longer.

THE DAYTON RUBBER MFG. COMPANY
DAYTON, OHIO

AT HOME is the way the Thompson Motor Sales, Pontiac dealers of Jefferson City, Mo., wants its visitors to feel. To encourage that frame of mind they have erected an attractive house entrance in their salesrooms and placed a cellophane-wrapped Pontiac at the door.

SUBSTANTIALITY is the keynote of the exterior view of Claypool-Roberts Co.'s plant in which Pontiacs are merchandised down in Memphis, Tenn. In design it is more like a school or public building than like a sales and service establishment. The lawn provides ample opportunity for an outside display of the new Pontiacs.

New GMAC 6% Plan Stripped of All Extras

The new 6 per cent plan of the General Motors Acceptance Corp. places in the hands of Pontiac dealers and retail salesmen one of their most effective sales weapons, in the opinion of factory officials.

Stripped of all muddling "extras," which only confused the average time buyer, this latest selling aid gives every prospect a clear and exact understanding of every item included in the time charge, which he can figure for himself by simple arithmetic, it is said.

Backed by a large national advertising campaign, the new plan is building up good will for the Pontiac retail organization, and the cumulative effect of promotional efforts being put behind the plan will work to constantly greater advantage as the selling year progresses.

A noteworthy public reaction has come through complete elimination of the confusing "extras," formerly typical of time financing practice, which defied the purchaser to determine for himself what the ultimate total cost of his car would be.

From the standpoint of direct new car selling, the big factor is the reduced, flat 6 per cent rate, which means that a new Pontiac bought on time in contrast with a competitive car similarly bought, but not financed through GMAC, may enjoy an even better price advantage than is indicated by the list prices. It may amount, in effect, to a still further price reduction on the new Pontiac.

Dealers have already reported that, due to the promotion behind the new plan, they are writing more GMAC paper than ever before.

The salient sales advantages in the plan, as outlined at the time of announcement, are highlighted here.

"Six per cent on the unpaid balance and insurance is the total cost to the customer. No extras, no charges or fees for 'investigation,' for 'reserves,' or for 'embezzlement bonds.' The plan is simple as A, B, C and will furnish every customer, who can use a pencil, with positive protection against overcharges in competitive practices. This advantage will increase the time sales volume of dealers sponsoring the plan, if used aggressively.

"Out of the total differential GMAC will continue to set up for the account of the dealer on both passenger and commercial cars a reserve for repossession losses at the prevailing rates for new passenger cars, based on original unpaid balances. This means that dealers will continue to receive the reserve even though it has been eliminated from the build-up of the total differential!

"This feature of the plan is unique among other 6 per cent plans, particularly those sponsored by banks and automobile clubs. Virtually all of them deal directly with the buyer and do not make any provision for dealer reserves, nor do they make definite arrangements for the handling of collision and other insurance repair work by the dealer."

Payroll Gains 240 Per Cent At Fisher Plant

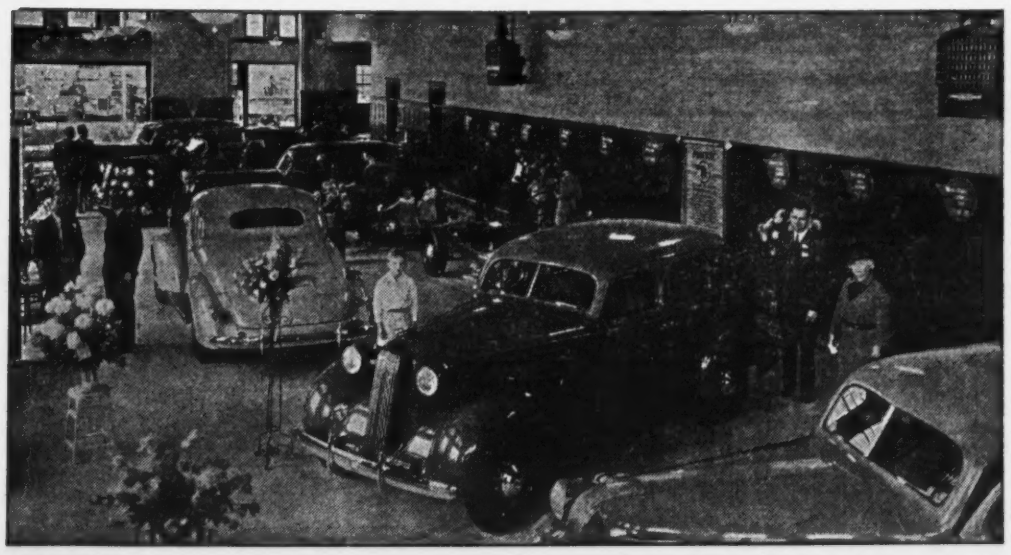
Showing perhaps the largest gain in the industry, the Fisher Body plant at Pontiac, Mich., in 1935 recorded an increase of approximately 193 per cent in employment and 240 per cent in total payroll.

This became known today when Edward F. Fisher, general manager of General Motors' body-building division, revealed figures covering operations for the year just ended at the unit that supplies the solid steel "turrent top" Fisher bodies for the Pontiac sixes and eight.

In the 12-month period, the Fisher plant provided employment for an average of approximately 5,000 workers and poured nearly $7,500,000 into the channels of trade and commerce in wages and salaries, bringing individual earnings up to an average of $1,511 as compared to $1,264 in 1934, an increase of 20 per cent.

Besides this, some $2,000,000 was spent in expansion, which included construction of an L-shaped addition to the press room, remodeling and enlarging the receiving depot, and numerous improvements within the plant to increase production and provide better working conditions for employes.

The program, starting in May, continued through December. An average of approximately 750 men were employed by contractors in charge of construction during this perion. Occupying 1,363,554 square feet of floor space, the plant now has a production capacity of 2,000 units daily.



DOWN IN DIXIE one of the leading automobile dealerships is that of the Claypool-Roberts Co., which handles Pontiac in Memphis, Tenn. Here is a view of their showroom revealing to what extent they have utilized their resources to the best advantage. Airiness and plenty of light add immensely to the attractiveness of the layout.

To Those Who Serve

PONTIAC dealers are building a splendid reputation for economical and efficient service by equipping their Service Departments with Authorized Tools and Equipment.

Hinckley-Myers will continue to devote all their facilities and experience toward carrying on this splendid work by striving to make every tool they design perform accurately and efficiently the work for which it is intended.

Our latest edition — Pontiac Tool Manual — can now be secured through any Pontiac Zone Office—Ask for a copy.

HINCKLEY-MYERS
DIVISION OF KENT-MOORE
JACKSON MICHIGAN
West Coast Warehouse—6647 Foothill Blvd., Oakland, Cal.

COLUMBUS AUTO PARTS help PONTIAC to last 100,000 miles

We are proud to be associated with the building of the splendid Pontiac car on its tenth birthday. Our sincere congratulations to Pontiac for its thoroughly advanced engineering and dependable performance. Manufacturers are invited to investigate the advantages of Columbus Auto Parts in solving equipment problems. For the convenience of our customers, we now have established a general sales and service office at 614 Fisher Building, Detroit.

★

The Columbus Auto Parts Company
(*Factory*) Columbus, Ohio

PONTIAC

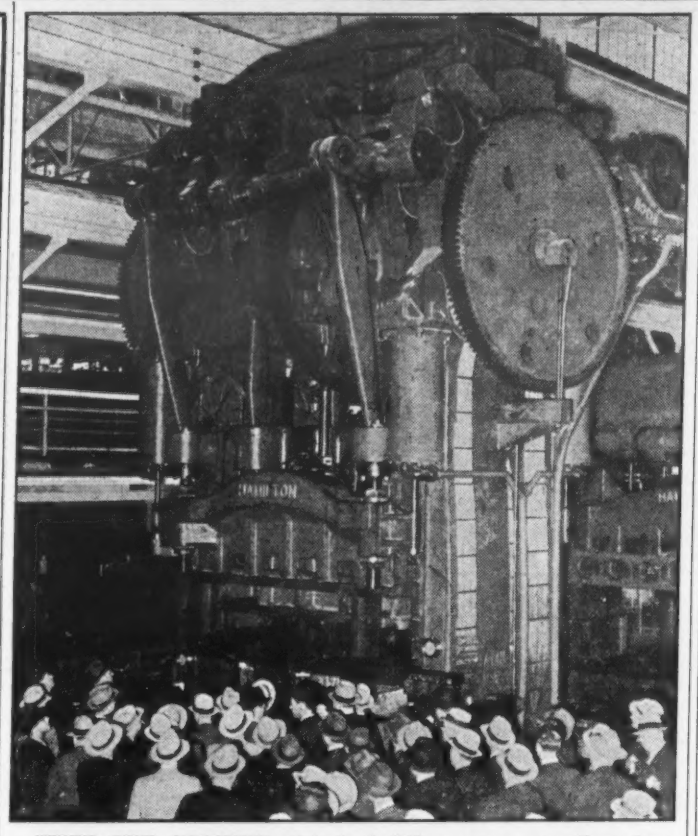
. . . we salute you!

Yours is a noteworthy record. In growth, dynamic force and rapid development few companies can rival you. You have made yourself one of the spearheads of the automotive industry—and this industry is leading America back to recovery You have shown courage—foresight—vision. The rewards you are reaping are well due you. Accept our congratulations and best wishes.

●

DETROIT GRAY IRON FOUNDRY COMPANY
Foot of Iron Street — Detroit, Michigan

DETROIT ALLOY STEEL COMPANY
Foot of Iron Street — Detroit, Michigan



WITH THE GROWTH of body building, press operations have developed tremendously. This huge press in the Fisher Body Pontiac plant stamps out body panels for new Pontiac cars with all the ease that Mother used to wield her biscuit cutter a decade or two ago.

Pontiac and Fisher Body Celebrate 10th Birthday

(*Continued from Page* 29)

quantities that it can produce finer products at lower costs than any others in the industry.

The pioneering, which began with the introduction of the closed body, has been continued through the years. Fisher Body was the first to introduce no-draft ventilation, a feature that Pontiac and the other General Motors cars are retaining despite its considerable cost and the highly competitive market that exists.

Pioneered Solid Top

It was the first to introduce the seamless, one-piece solid steel roof, which provides protection overhead where it is most needed. Fisher Body pioneered the practice of producing side panels in one piece, but never before in the history of the automobile body-building industry has sheet steel of such great dimensions as that required by the "turret top" body been employed.

Along with the safety of steel overhead, the inner construction of the new body at both the front and back is entirely of steel. The new type of construction gives a freshness and beauty of line that is more attractive than any of the designs that have preceded it, and combined with the V-type windstream windshield, lends to the whole a charm of profile and contour, of modern streamlining, that is regarded as being far in advance of anything available heretofore.

Fisher Body also pioneered the sloping windshield that prevents reflection, always a hazard at night and particularly under poor driving conditions. It introduced the sponge rubber arm rest for the driver and his front seat passenger, the recessed foot rest, the inside sun visor and many other features.

Inspectors Are Strict

An enormous corp of inspectors is maintained by Fisher Body. Raw materials first of all, must pass strict tests devised by Fisher engineers and chemists. Then, upwards of 1,800 inspections are made during the operations that transform them into the finished product. The inspectors, in no way connected with the production departments, have full authority to reject all work that falls short of the requirements. A further check is made by the inspectors of the General Motors passenger car divisions, who must approve the bodies before they leave the Fisher plants.

There are now 25 Fisher Body plants in the United States. Locations for them have been chosen with a view to placing them close to the source of supply for raw materials as well as the car divisions they serve. At Pontiac, for example, the Fisher Body unit and the Pontiac Motor Co. factory are near enough so a covered ramp connects them.

60,000 on Rolls

Approximately 60,000 persons are now on the Fisher Body payroll in its various plants. These include factories at Detroit, Flint and Lansing, Mich.; Buffalo and Tarrytown, N. Y.; Cleveland and Norwood, O.; St. Louis and Kansas City, Mo.; Oakland, Calif.; Memphis, Tenn.; Atlanta, Ga.; Seattle, Wash.; Janesville, Wis., and Baltimore, Md., in addition to the one at Pontiac and a die shop and stamping plant to be erected at Grand Rapids, Mich.

Fred and Charles Fisher, the founders of the business have stepped out to manage family interests outside of the automotive industry, but the other four brothers all hold executive positions in Fisher Body and General Motors.

Edward, one of the younger brothers, today is the general manager of the Fisher Body division of General Motors. His brother William serves as president. The latter also is a vice-president and director of General Motors Corp. Lawrence is a vice-president, a member of the operating staff and the executive committee of General Motors. Alfred is a member of the executive vice-president's staff.

Other Officials

Other Fisher Body officials, all of them outstanding in their respective fields, include Thomas P. Archer, vice-president in charge of operations; L. D. Crusoe, comptroller; Dr. A. F. Lecklieder, personnel director; Peter F. Mauck, chief engineer; C. A. Crusoe, purchasing agent; Glenn Simpson, chief experimental engineer, and William S. McLean, director of advertising.

(*Continued on Next Page*)

Comfort Is Built In

You can't see it--but you know it's there!

Arm Rests for instance.

●

SPONGE RUBBER PRODUCTS CO.

Detroit Office
602 New Center Bldg.

Plants
Derby & Shelton, Conn.

PONTIAC

selected engineered lubrication because it meets the requirements of modern motor cars—

THE LINCOLN KLEENSEAL SYSTEM

LUBRICATION FITTINGS

LUBRICATION GUNS

LINCOLN ENGINEERING Co.
St. Louis — Detroit

Herbrand Forgings

●

Herbrand quality forgings are specified by Pontiac on various of their major parts which require precise limits.

The Herbrand method of manufacturing these important Pontiac parts insures increased physical properties of the material used, insuring a maximum of strength for these forgings.

Herbrand steam and board hammers of varied sizes, and modern heat treating equipment offer facilities capable of producing quality forgings over a wide range of sizes and weights.

●

The Herbrand Corp.
Established 1881
Fremont, Ohio

"has following in the field"

"Judging by the comments I hear from dealers, your publication enjoys a wide following in the field, and we, here at the factory, read it for its up-to-date reporting of facts vital to successful management. I find its frequent date of publication helpful in getting timely news while it is still fresh. More power to you!" — A. W. L. Gilpin, vice-president and general sales manager Pontiac Motor Company.

A. W. L. Gilpin

ONE OF THE giant presses used in the manufacture of the solid steel front end assembly of the new Fisher "turret top" body. The cam die in the huge machine spanks the windshield opening and the corner posts. This is one of the many operations conducted at the Fisher body plant at Pontiac, Mich.

Pontiac and Fisher Body Celebrate 10th Birthday

(*Continued from Page 52*)

Additions to the Pontiac, Mich., Fisher Body plant in recent months have made it one of the most modern body-building units in the entire industry.

Adjacent to the factory of the Pontiac Motor Co., it supplies all the bodies used by this General Motors' passenger car division, and there are 21 different models in the 1936 line. These are obtainable in a wide variety of color combinations, as well as a choice of upholstery material and trim.

Occupies 40 Acres

The plant, which contains 1,363,554 square feet of floor space, occupies a 40-acre site. With recent additions and improvements that have been made, it now has a capacity of 2,000 units daily.

The expansion program carried out in the last year at a cost of more than $2,000,000 included construction of a large addition to the press room, the rebuilding of the two-story structure housing the paint shop and the "cut and sew" department, replacement of the spray booths with those of a new and improved type, and the remodeling and enlarging of the receiving depot.

Tremendous sums were spent at the Pontiac Fisher Body plant in tooling up for the new "turret top" body, since there was no machinery in existence of sufficient size to draw and form the five component parts when the design was first conceived.

Must Pass Four Presses

Each of the one-piece, seamless steel roofs that are produced must pass through four mammoth presses, which exert a total pressure of 5,200 tons, or 10,400,000 pounds. Two of them are toggle presses, stand four and one-half stories in height, and weigh 500 tons apiece. The other two, which are of the tandem slide variety, weigh some 400 tons.

There are now two complete "turret top" production lines at the Pontiac plant. Other press room equipment includes 12 250-ton presses, six others almost as large, and scores of smaller machines.

While the individual metal parts of the "turret top" bodies are being fabricated and the subassemblies completed in one section of the plant, the seat frames and upholstery are prepared in another.

Bathed in Acid

In the meantime, the metal parts of the body travel to the assembly department, where the front end assembly is completed. This, with the solid steel roof, the quarter panels and the steel flooring, are placed in a set-up buck and welded into a solid steel unit. It is not until this step is completed that installation of the girder-type interior bracing, which is welded at strategic points to the steel outer shell, takes place. Afterward, the welds are cleaned, the doors hung, and the fixtures needed for purpose of securing the upholstery and trim added.

The steel shell is then subjected to a phosphoric acid and alcohol bath, which is followed by the priming coat and filler. The surface is then rubbed down with fine wet sand, the ground coat applied, and next the colored lacquer. The application of fine abrasives afterward gives the Duco its high polish.

Glass Added

After painting, the body goes to the glass department where the safety plate glass windshield, the ventipanes of the exclusive Fisher no-draft ventilation system and the window glass are installed. From there, it travels to the trim shop where the headlining, the sidewall fabric, the door trim, the arm rests, and the weatherstrippings are fitted.

This is followed by the installation of the heavy layer of jute that lies under the floor mats, and the mounting of the seats and back cushions. The windshield assembly and the garnish moldings also are applied here.

The next step is a general cleaning and polishing in preparation for the final inspection, which is conducted by those in no way connected with the production department. The finished Fisher Body then travels by rail down the long, covered ramp that joins the Fisher plant with that of the Pontiac Motor Co. There it meets the chassis for which it has been designed and scheduled far in advance.

Sell More Cars with

PONTIAC TALKIES

"SILVER STREAK" and "Extra Values" are two 16 mm. talking motion pictures, prepared by Pontiac Motor Company to help you sell. In the service of many dealers, they have *proved* their power to get orders. Ask your Zone Manager.

To present these films before your prospects, use the Bell & Howell Filmosound Projector. It gives "extra values." It insures perfect showmanship, theater-quality pictures and sound, and long film life.

GENERAL MOTORS' quantity price on Filmosounds is available to Pontiac dealers through Pontiac sales headquarters. Write to Bell & Howell for Filmosound descriptive literature.

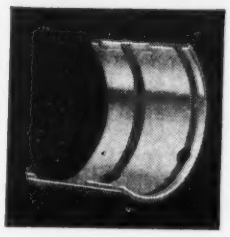
BELL & HOWELL CO.
Industrial Sales Division
1801-15 Larchmont Ave. - Chicago

Congratulations . .
PONTIAC
On 10 Successful Years

JOHNSON BUSHINGS · BARS · BEARINGS BRONZE

NEW CASTLE - - PENNA.
DETROIT OFFICE • GENERAL MOTORS BUILDING

CADMIUM-SILVER-COPPER BEARINGS



AS MODERN AS THE PONTIACS THEY EQUIP!...

JUST as the Silver Streak Pontiac represents all that is new in modern automotive development, so do cadmium-silver-copper bearings — as supplied for Pontiac engines by Federal-Mogul — represent the latest and best in bearing design and metallurgy.

They typify the Federal-Mogul practice of keeping abreast of the automotive industry's developments, and being prepared to meet its requirements. Pontiac was one of the first to adopt this improved engine bearing.

Mogul FEDERAL

FEDERAL-MOGUL CORPORATION
DETROIT • MICHIGAN

BUNDY TUBING
for
DEPENDABILITY
DURABILITY
DIVERSABILITY
•
BUNDY TUBING CO.
Detroit

CONGRATULATIONS

PONTIAC

ON THIS YOUR

TENTH ANNIVERSARY

ANTI-FRICTION — SHOCK-RESISTING

STEERING GEARS

for

PASSENGER CARS — TRUCKS — BUSES

Saginaw Steering Gear Division

GENERAL MOTORS CORPORATION

SAGINAW, MICHIGAN

Romance and Steel

if you have never driven a '36 Pontiac along a country road at night with the mellow tone of a *'36 Pontiac Radio* telling you softly all's right with the world---boys and girls you have missed something

. . . Try it!

COLONIAL RADIO

CORPORATION

BUFFALO DETROIT

Modern Pontiac Came from Old Carriage Days

(*Continued from Page* 16)

inal two. This year also, new additions were made to the factory layout, and Oakland assembly operations, and certain manufacturing activities were moved to the modern plant.

Pontiac production in 1928 soared to the highest point on record—210,890 units.

Included in the expansion program in 1928 was a foundry built at a cost of $5,000,000 and embodying the most advanced practice known to the industry. This unit operated until, in 1932, when volume dropped to a point where the foundry, which like all foundries has to operate at near capacity to be profitable, was closed.

It was re-opened within the past two months, however, because current demand for Pontiac cars indicates that the foundry unit may again continue on an efficient basis throughout the production year.

Can Run Three Lines

Included in the modern factory layout on the edge of town, in addition to the foundry, are a motor plant, sheet metal plant, parts manufacturing plants, and an assembly plant capable of operating three lines simultaneously.

New storage sheds and other incidental buildings also have been added within the past few months.

From the 1928 high of 210,000 Pontiacs, production tapered off to 185,768 cars in 1929, when the tightening market necessitated large schedule cuts and an early shutdown on the model run. In 1930 it took a further drop to 58,212 units, in 1931 climbed back to 80,405, but in 1932 fell to the lowest on record—42,749 cars.

The seriousness of the depression by now fully realized, a drastic change in policy involving centralization and consolidation took effect. I. J. Reuter was named manufacturing head of Pontiac, as well as of other divisions of General Motors, and held that position until succeeded, in May, 1932, by W. S. Knudsen, then president of Chevrolet, who shared the Pontiac manufacturing job with the general managership of the Chevrolet division.

In 1932 the new Pontiac models were straight eights exclusively, while in the previous years they had been exclusively sixes. Eights were built exclusively for the next three years, ending with the 1934 model run.

Named President

On Oct. 15, 1933, Knudsen became executive vice-president of General Motors, and his previous Chevrolet vice-president, Harry J. Klingler, was named by Knudsen to Pontiac as president and general manager. Klingler was one of the few men ever to be elevated from a sales position to a general managership in General Motors. The previous practice had been to advance manufacturing men or engineers to the top position.

Aside from any peculiar personal qualifications which Klingler might have had for the Pontiac job, the mere fact of his appointment indicated a recognition of new problems in the industry, and a change in the fundamental requirements of a general manager. In the early decades the primary requirement of a car was that it run. The engineer, then, was the key man. Later, the primary thing was being able to build them, and in that the manufacturing man had his day in the spotlight. Today, with the first two major problems licked, the foremost problem is that of sales.

Klingler, in his last three years with Chevrolet, had sold more cars than any other make. His appointment as president of Pontiac was construed in the trade

(*Continued on Next Page, Col.* 3)

It's as Important . .

To Fit the Right Coal To Your Steam Plant

. . As it is to Fit the Right Crank-shaft to the Pontiac!

PIONEER ISLAND CREEK COAL

JUST as every part and mechanism is perfectly adapted to make the Pontiac car what it is today, so is Pioneer Island Creek Coal perfectly adapted to supply steam under any and all conditions through our Selective Application Plan.

It is just as important to fit the right coal to a steam plant for perfect results as it is to fit the right crank-shaft to an automobile for perfect results.

Our Selective Application Plan will do this for you.

ISLAND CREEK COAL SALES CO.

DETROIT-RICHMOND-BOSTON-CLEVELAND-NEW YORK-CINCINNATI

Western Representative: Globe Coal Co. 332 S. Michigan Ave. Chicago, Ill.

Canadian Representative: The F. P. Weaver Coal Co., Ltd. Offices in Montreal and Toronto, Canada

Quality!

Every inch of these 1936 PONTIACS reflect the high standards of workmanship and material

SCHLEGEL MFG. CO.

ROCHESTER NEW YORK

Members of Our Organization Purchased

9 PONTIACS

During The Last Year!

• • •

BECAUSE **"Pontiac Has All That's Best of All That's New!"**

• • •

BECAUSE **"Pontiac Is the Most Beautiful Thing on Wheels!"**

• • •

BECAUSE **"Pontiac Is the Most Economical Car of Its Class!"**

• • •

MICHIGAN ELECTROTYPE
AND STEREOTYPE COMPANY

We have served Pontiac since the first car rolled off the assembly line

TEmple 2-7525

95 W. HANCOCK DETROIT, MICH.

Thermoid

congratulates

Pontiac

Modern Pontiac Came from Old Carriage Days

(*Continued from Page 54*)

as a recognition of the fact that as a sales-minded president he might be able to accomplish better results in that division than men trained in other lines of the industry.

His appointment also stamped the General Motors' conception of the Pontiac job as one primarily of sales. From the beginning, the Pontiac car had been accepted as one of the best-engineered in the industry, and as one of the best built. Obviously, it was not getting the distribution which the management of the corporation thought it should have. Therefore, Klingler.

Brought New Group

In his more than two years with the company, he has not disturbed either the engineering or manufacturing regime which he found there when he arrived. But he did bring in a wholly new group of sales executives recruited largely from his previous Chevrolet connection.

He set up A. W. L. Gilpin, a previous Chevrolet regional manager, as his vice-president and sales manager; established as assistant sales managers C. P. Simpson and D. U. Bathrick, numerous field men from his previous connection; F. A. Berend as advertising manager, and in due time got W. A. P. John as advertising counsel, a man for many years associated with him in Chevrolet advertising.

Klingler laid out a long-range program aimed at an ultimate annual volume of 400,000 Pontiacs.

After his arrival in 1933, his first work was on internal organization. Volume that year was 87,885 cars. In 1934, with internal organization work still the main problem, it dropped to 76,553 cars. However, in 1935 with the "Silver Streak," the first model designed and engineered under the Klingler regime, volume went up to 180,000 cars. Two sixes were added in 1935, and the straight eight continued to make the franchise more attractive, and a liberal dealer policy was effected. The same year, the company also got an exclusive and independent wholesale set-up.

Proved Successful

The "Silver Streak" was successful beyond the expectations of anybody in a managerial position. The result was that a 1935 program designed to add new retail outlets had to be curtailed because for nine months of the year there were not sufficient cars for established dealers, and prospective new ones could not be signed up with any assurance of merchandise to sell. Production of the six never did catch up with dealer orders during the entire model run. The year ended, however, with a substantial strengthening of retail outlets, and with a high percentage of dealers nicely in the black.

Today the plant capacity has been doubled over 1935, and the adjacent Fisher Body factory, connected by overhead conveyor with the assembly line, is one of the most extensive operations of that division.

With the foundry re-opened, every part of the world's most modern plant again is in operation, and every department once more is engaged in productive activity.

The large administration building, deserted for several years after the crash for economy reasons, is again completely filled, and several new buildings have gone up within six months to raise plant capacity to the productive demands made upon it.

For 1936, a Pontiac program calling for a minimum increase of 50 per cent over 1935 has been set up. If it is achieved—and there is every indication that it will be—the year will set a new all-time high in the history of the car.

Congratulations

TO

PONTIAC

★

Shakeproof sends greetings on this important anniversary and extends best wishes for continued success during 1936 and the years to come.

★

SHAKEPROOF
Lock Washer Company

Distributors of Shakeproof Products
Manufactured by Illinois Tool Works

2501 N. Keeler Ave. Chicago, Ill.

--To Keep

Automotive Daily News

The Newspaper of the Industry

Coming

mail this today

If you are not a regular reader of ADN take advantage of the coupon below and receive TWICE-WEEKLY the NEWS of the Industry. No better investment for Dealer, Jobber, Manufacturer or anyone who makes his living from this fast-moving business.

AUTOMOTIVE DAILY NEWS,
Detroit, Michigan.

Kindly enter a subscription for:

(mark which)

Six Months' Trial	$ 3.50	( )
One Year	$ 6.00	( )
Two Years	$10.00	( )

and send invoice to:

.....

.....

.....

(Kindly enclose card or letterhead to indicate your connection with the automotive industry)

HOUDAILLE-HERSHEY CORPORATION

extends the sincerest good wishes for a continuation of the brilliant success of the

PONTIAC MOTOR COMPANY

upon the occasion of its 10th Anniversary

★

The Houdaille-Hershey Corporation manufactures a varied line of quality products for automobiles.

HOUDE ENGINEERING CORPORATION
BUFFALO, N. Y.

★

LYON COVER COMPANY
DETROIT, MICH.

★

GENERAL SPRING BUMPER CORPORATION
DETROIT, MICH. • CHICAGO, ILL.

★

OAKES PRODUCTS CORPORATION
NORTH CHICAGO *and* DECATUR, ILL.

★

THE SKINNER COMPANY, LTD.
OSHAWA, ONTARIO

★

MUSKEGON MOTOR SPECIALTIES CO.
MUSKEGON *and* JACKSON, MICH.

★

HOUDAILLE-HERSHEY CORPORATION
EXECUTIVE OFFICES: DETROIT, MICHIGAN

TO PONTIAC

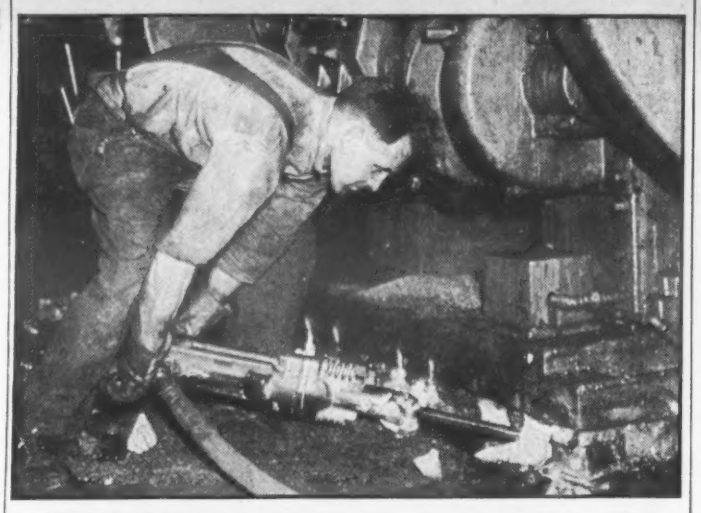
Congratulations On a Most Successful Ten Years . . . .

We count it a privilege to have played a small part in the transportation history which has been made by your outstanding achievements. We join in your thrill of accomplishment. And now, commercially, may we list the products we are in position to supply?

BRASS TUBE FITTINGS OF ALL TYPES . . . WEATHERHEAD PATENTED INVERTED FITTINGS . . . GASOLINE AND OIL-PROOF HOSE . . . DASH CONTROLS . . . HYDRAULIC HOSE AND FITTINGS . . . AUTOMATIC SCREW MACHINE PRODUCTS . . . SPRING CLIPS TO ELIMINATE LOCK WASHER AND NUT.

We pride ourselves on a plant and personnel comparable in efficiency to the standards set by the automotive industry.

THE WEATHERHEAD CO.
1387 WEST NINTH STREET CLEVELAND, OHIO
• DETROIT . . . 704 FISHER BUILDING •



MILLIONS OF DOLLARS have been spent in retooling at Pontiac during the past 18 months. Costly new machinery has been installed and existing machinery has been rearranged.

Industry and Research Have Pooled Resources

Research "does" today the things that "couldn't be done" yesterday—the impossible, according to past experience.

In the early days of the 20th century, industry and research lived on opposite sides of the street. Each one had, in a sense, what the other lacked. Industry had aggressiveness—the ability to make things and sell them. Research had imagination, curiosity and patience. Both knew the meaning of hard work.

For a long time, they had managed to get along quite well separately. The things industry made weren't very complicated. It required no particular knowledge of science to build a buggy or a plow. And the things that research discovered weren't especially intended to be "practical."

Endless Problems

But the automobile made a tremendous change in the situation. It raised endless problems in chemistry, physics and electricity, which research had never tried to answer and which had to be answered if people were to find satisfaction in the automobile.

General Motors met that situation with the finest research laboratories in the industry.

Laborious study of the basic sciences of physics, chemistry, metallurgy, biology, botany and electricity that enter into combustion, thermodynamics and a host of other principles of design, have given to the motoring world much of the comfort, economy and dependability that is found today in the Pontiac car.

General Motors research has had to develop its own methods and tools. It is working with instruments today which were unknown a few years ago; ingenious devices which make it possible to analyze steel with a beam of light; to photograph the way gasoline explodes inside an engine; to duplicate inside the laboratory the wind which whirls past a speeding automobile; to look at the gears and parts of a machine running at speeds up to 4,000 revolutions per minute, and see them as if they were standing still.

All of the development work of General Motors research laboratories is placed at the disposal of the engineers of its various manufacturing divisions. Thus Pontiac can take the results of any research problem and in its own way and through the skill of its own engineers apply them to the design of the Pontiac car.

At Beck and Call

In addition, GM Research functions for its divisions just like an outside consultant or an independent industrial research laboratory.

Thus, Pontiac engineers may turn over to GM Research any special engineering of design problems. The research laboratories generally are used when Pontiac does not have the equipment, personnel or the time in its own engineering department and laboratories to do a given job.

Research is a part of engineering expense. When a problem is given to GM Research, all time, material, consulting fees, etc., are charged back to Pontiac Motor Co., until the job is completed.

Pontiac Plan Will Junk 10,000 Obsolete Vehicles

Some 10,000 obsolete vehicles which have long constituted a serious menace to highway safety, will be taken off the roads of the country as a result of Pontiac Motor Co.'s nation-wide used-car junking plan which was announced last week by A. W. L. Gilpin, general sales manager. The plan will be put into effect through the co-operation of Pontiac dealers everywhere.

"Pontiac will pay its dealers $20 for the cars they scrap during January and February under the terms of the plan," says Gilpin.

"It is expected that this plan will serve as a means of reducing dealers' stocks of used cars and for the purpose of retiring once and for all as many old cars as possible that are a menace to the public highways and are one of the greatest obstacles in the way of safe driving.

"Based on the normal expectancy of the turnover in low-priced used cars plus the impetus of this $20 junking inducement, I have every reason to believe our dealers will succeed in clearing 10,000 of those old cars off the roads, and thereby reduce their own stocks of used cars by a similar number.

"All junking, which will be under the supervision of our district managers, will be complete in every respect. So there is no chance these cars will ever run again.

"Preliminary reports indicate that dealers are taking hold of the plan even more enthusiastically than we anticipated, and I am convinced that Pontiac, as well as the whole industry and motorists everywhere, will benefit from the used car junking plans that we and other companies have put into effect."

Vive le Pontiac!
The FLEX-O-TUBE Company
Detroit

•

A Pontiac source for Hydraulic Brake Hose Assemblies

•

FLEX-O-TUBE Fuel Lines (originators)

THE FLEX-O-TUBE CO.
DETROIT, MICH.

TYPOGRAPHERS TO PONTIAC

PONTIAC—a leader in motor car values—looks ONLY to other leaders for the production of Pontiac sales literature and advertising.... It is a matter of pride with us that we are privileged to be "Typographers to Pontiac." Pontiac Motor has found that The Thos. P. Henry Company maintains the highly flexible organization necessary to the production demands of present-day advertising. Equipped to render skillful interpretative ability, peak-load service and intelligent follow-through of any type job, Henry facilities are available 24 hours a day.... Many of the foremost advertisers and printers, as with Pontiac, find these facilities practically indispensable for the production of newspaper, magazine and direct-mail advertising. . . . Why not let your advertising have the advantage of "Typography by Henry"?

THE THOS. P. HENRY COMPANY

• Advertising Typographers •

41 BURROUGHS AVE. • DETROIT

...For 10 Years

The Jansen Mfg. Company
Detroit

and

The Backstay Welt Company
Union City, Ind.

have been sources of supply *for*

Pontiac

and

Fisher Body

on

Bindings
(all types)

Fender Welts

Who's Who in Pontiac

Officers and Executives

H. J. KLINGLER, *President and General Manager*
A. W. L. GILPIN, *Vice-President and General Sales Manager*
BENJAMIN H. ANIBAL, *Vice-President and Chief Engineer*
P. H. MACGREGOR, *General Plant Manager*
H. J. SCHMIDT, *Comptroller*
R. A. DICKINSON, *Assistant to the President*

Sales Executives

D. U. BATHRICK, *Assistant General Sales Manager in Charge of the East*
C. P. SIMPSON, *Assistant General Sales Manager in Charge of the West*
F. A. BEREND, *Advertising Manager*
B. B. KIMBALL, *Assistant Advertising Manager*
F. H. FENN, *Sales Promotion and Group Selling Manager*
MILES LILLY, *Assistant Sales Promotion Manager*
H. T. WORDEN, *Assistant Group Selling Manager*
L. K. MARSHALL, *Service Manager*
O. A. LAMOREUX, *Parts and Accessories Manager*
W. I. GIBSON, *Assistant to the General Sales Manager*
E. R. PETTINGILL, *Car Distributor*
J. L. JOHNSON, *Analyzation and Organization Manager*
PAUL DEAN, *Business Management Manager*
E. S. GRUMBACHE, *Budget Manager*
V. L. MURRAY, *Manager Atlantic Region*
V. A. DAVISON, *Manager Southern Region*
A. A. KLEIN, *Manager Central Region*
ALLEN WRIGHT, *Manager Mid-west Region*
TOM RAY, *Manager of Pacific Region*

Factory Executives

S. W. MOWBRAY, *Plant Superintendent*
C. E. SUMMERS, *Assistant Chief Engineer*
W. H. MANNING, *Assistant Chief Engineer*
W. R. MILNER, *Body Engineer*
F. H. MCLAUGHLIN, *Purchasing Agent*
E. B. ROGERS, *Traffic Manager*

Administration Building Is Humming With Activity

A structure which for three years stood as a silent monument to the depression once again hums with activity in a sort of symbolic prophesy of better times.

The structure — a four-story brick building—housed the administrative departments of the Pontiac Motor organization for 12 years until April, 1932, when the ebbing tide of business left the block-long office structure high and dry. The reduced personnel of administrative departments found smaller quarters in vacated sections of the plant, where production was then creeping along at one-fifth the pace of former and much better years.

But in 1935 the quick pick-up in Pontiac sales threw normal burdens upon the plant, and productive activity began to spread out and crowd those once-vacated quarters. Officials anticipate that in 1936 the full productive capacity of the plant will be utilized.

To prepare for this increased activity, a gang of carpenters in September began to remodel and completely refurbish the old building which had stood idle for 40 months. Truckmen brought in new furniture and designers laid out conference rooms and sections for car and accessories displays.

In October the administrative departments moved back into the modernized structure, located two miles from the plant, and just beyond the heart of the city.

Here are housed President Klingler and his immediate staff; the sales department and all divisions of it, including service, and the Detroit zone and regional headquarters.

The building adjacent to the plant which they formerly occupied now contains those departments closely concerned with manufacturing activity, such as the general plant manager and staff, accounting, traffic, purchasing, personnel, etc.

Car Radio Has Quick Rise in Public Favor

From an experiment of dubious value only a few years ago, the car radio during the past season took undisputed first place as motoring America's favorite accessory.

During that time 18 per cent of all purchasers of new Pontiacs—both sixes and eights—specified radios as original equipment with their cars.

Pontiac Sales, Service Depts. Promote 89

It is only necessary to spend a few minutes with Pontiac's A. W. L. Gilpin to find out some of the reasons for the enthusiasm of all members of the Pontiac sales organization.

It is a growing organization and every man in it is made to feel that there is plenty of opportunity for advancement and promotion.

"Our men all know that there have been 89 promotions and advancements in the sales and service departments last year," said Gilpin. "Twenty-eight men have been promoted to the position of zone manager or given advancement in that position. A like number of assistant zone managers have been promoted or appointed. Four regional managers also have received similar promotions.

"In addition to these, nine service managers, five regional business managers, three regional office managers, one retail store manager and 10 department heads or their assistants in the central office have received advancement.

"Some of these promotions were brought about by the splitting apart of the Pontiac and Buick field organizations earlier in the year. Only four men have left Pontiac during the year, two of them to become dealers and one to go with another division of General Motors.

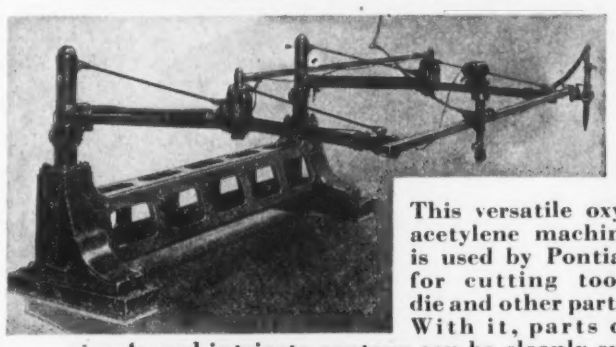
"All of our Pontiac promotions to department heads and key positions come from within the organization. We do not bring men in from the outside for important jobs. That encourages every employe to go after one of these good positions.

"We probably won't have 89 important promotions every year, but we are growing rapidly and the men in the organization are growing with the company."

Congratulations PONTIAC!

AIR REDUCTION is proud to be among those whose processes and products have contributed to Pontiac's decade of progress.

The AIRCO-DB No. 6 OXYGRAPH



This versatile oxy-acetylene machine is used by Pontiac for cutting tool, die and other parts. With it, parts of simple and intricate contour can be cleanly cut from steel plate, slabs or billets with a speed and economy unequalled by any other method. Descriptive Bulletin on request.

AIR REDUCTION SALES COMPANY
General Offices: 60 East 42nd St., New York, N. Y.
DISTRICT OFFICES and DISTRIBUTING STATIONS in PRINCIPAL CITIES

A NATION-WIDE WELDING and CUTTING SUPPLY SERVICE

CHALK THIS UP TO REMEMBER

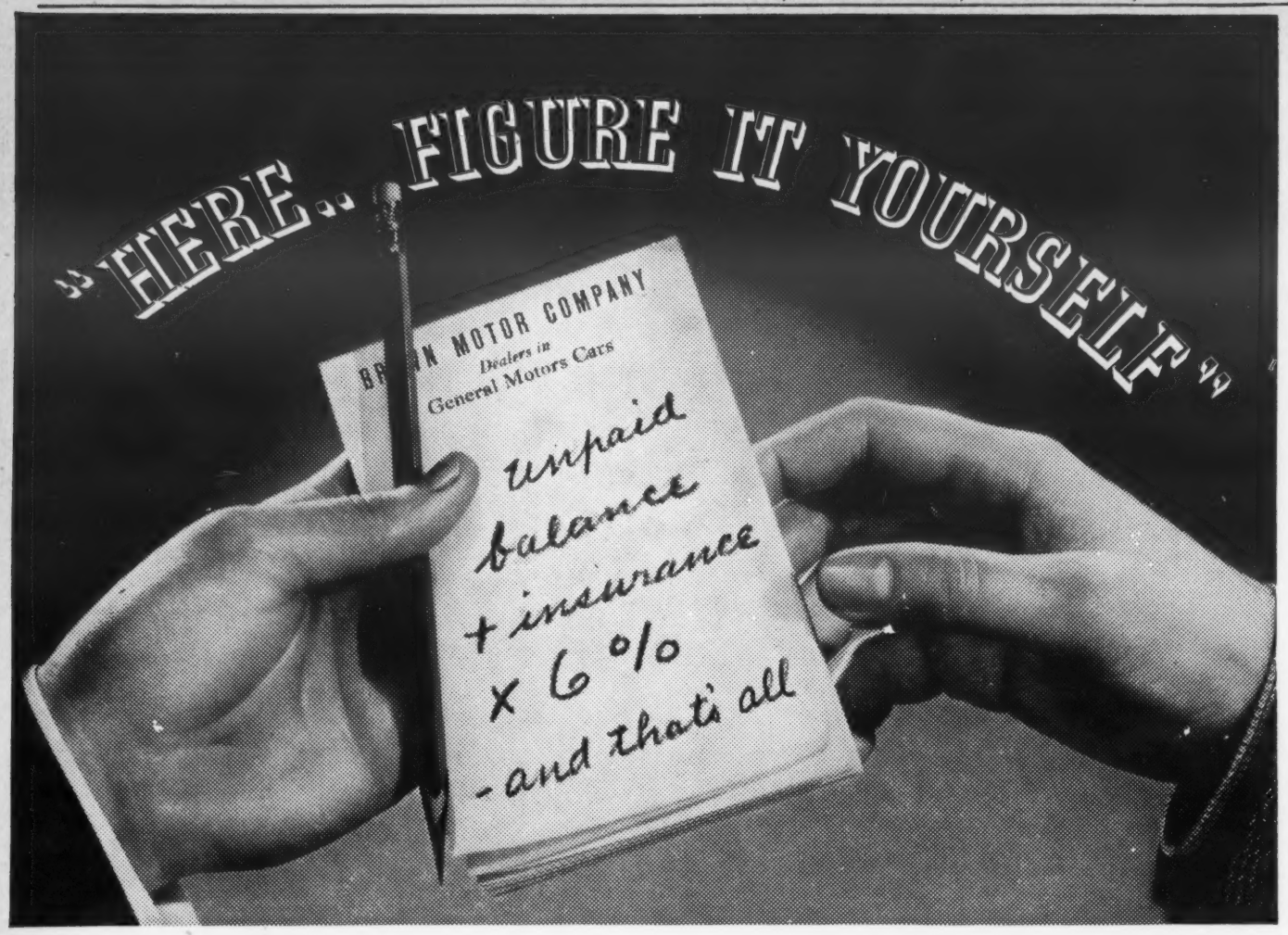
Dole for THERMOSTATS

● Motor temperature control and hot water heater efficiency achieved by the Dole Poppet Type Thermostat — free from water pressure influence. Uniform performance under all road, load and weather conditions. Non-adjustable and adjustable types. Also Butterfly Types in various models.

DOLE Double Compression COUPLINGS
DOLE Universal All-Tube COUPLINGS
DOLE Flared Tubing COUPLINGS
DOLE Ball Sleeve COUPLINGS and Small Brass FITTINGS
DOLE DRAFT DEFLECTORS
DOLE PRIMERS—Also Special Brass Parts from blue prints

Congratulations, Pontiac!

THE DOLE VALVE COMPANY
1901-1933 Carroll Avenue, Chicago, Illinois



Yes—you can figure it yourself—the cost of buying a new General Motors car on the new 6% GMAC time payment plan —just as easily as are thousands of other buyers all over the United States.

It's as simple as **A, B, C**—take the unpaid balance, add the cost of insurance and multiply by 6%. *This is not 6% interest*, but a convenient multiplier which is easy to use and understand. And remember, there are no "service" or "carrying charges" or *other extras*—they just don't exist under this easy-to-understand plan.

Consider *all* that this means to you. Now you can buy the new Cadillac or Buick, Chevrolet or Pontiac, Oldsmobile or LaSalle you want on the simplest, most convenient, and most economical plan you have ever known. And, at the same time, your new car will be protected by a policy in the *General Exchange Insurance Corporation* covering Fire, Theft and Accidental Damage, including Collision.

SIMPLE AS A, B, C.

A TAKE YOUR UNPAID BALANCE
B ADD COST OF INSURANCE
C MULTIPLY BY 6%—12 MONTHS' PLAN
[One-half of one per cent per month for periods more or less than 12 months]

THAT'S YOUR WHOLE FINANCING COST
NO EXTRAS · NO SERVICE FEES · NO OTHER CHARGES

In some states a small legal documentary fee is required.

The new General Motors cars are ready—and the new GMAC Plan is at your service. Be sure to avail yourself of its many unusual advantages.

GENERAL MOTORS ACCEPTANCE CORPORATION

Make your own comparisons To understand the real economy of the new GMAC plan, compare it with other finance plans on a dollars and cents basis. *And be sure to include similar insurance protection.* Ask your General Motors dealer for a pamphlet describing all the advantages of this plan.

Offered only by dealers in

CHEVROLET CARS & TRUCKS · PONTIAC · OLDSMOBILE · BUICK · LA SALLE · CADILLAC

The above is one of a series of advertisements now being addressed to the public by General Motors Acceptance Corporation.

--circulation climbing, and how!

In June, 1933, at the very bottom of the automotive depression, ADN was purchased by the present owners and moved to Detroit. The acceptance of this move and the improvements which followed can be illustrated in one way by the increase in circulation which followed:

1933 (June)
1933 (Dec.)
1934 (Dec.)
1935 (Dec.)

And this increase is the more amazing when you consider that

67.4% renew at $6 per year!

which is from two to six times the advertised subscription price of any other trade paper in the automotive field.

Automotive Daily News - - - Detroit

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Standard Steel Spring Co. 50

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Ternstedt, div. GMC 14
Thermoid Rubber Co. 55
Tung-Sol Lamp Wks., Inc. 18

U
U. S. Rubber Co. 2

W
Weatherhead Co. 56
Weirton Steel Co. 46
Wilson Co., H. A. 34

Y
Young Spring & Wire Corp., L. A. 45

BENDIX BRAKES

are

BETTER BRAKES

therefore, naturally, favorites

THERE is a very simple reason why Bendix supplies brakes for so many makes of automobiles, including the brilliant and deservedly popular new Pontiacs. Here is the reason:

Dating from the introduction of the four-wheel brake in America, more than a decade ago, every important advancement—every notable refinement—in brake construction, has been pioneered by Bendix Mechanical and Hydraulic Brakes and Bendix Power Braking.

As the industry's foremost brake producer, Bendix can and does build the finest brakes of all types obtainable, builds them with utmost efficiency, and supplies them to the motor car manufacturers of America on schedules calling for hundreds or for hundreds of thousands, as representing matchless dollar value in stopping equipment.

And that, we submit, is the soundest possible reason for Bendix Brakes being on any motor car or truck.

BENDIX PRODUCTS CORPORATION

(*Subsidiary of Bendix Aviation Corporation*)

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THE FINEST BRAKES OF ANY TYPE ARE BENDIX BRAKES

Capping the climax of

TEN YEARS OF ACHIEVEMENT

the One-piece Solid Steel "Turret Top" Body by Fisher helps Pontiac earn the title of "The Most Beautiful thing on Wheels"

Ten years ago, a newcomer in a crowded field. Today, heralded everywhere as a style leader, "the most beautiful thing on wheels!"

In the meteoric rise of Pontiac, Body by Fisher has played its part by lending outward style and inward beauty, by contributing restful comfort and reassuring strength and safety.

Today Pontiac is one of the safest of cars as well as one of the smartest. Complementing the safety of its perfected hydraulic brakes, the one-piece solid steel "Turret Top" adds a protective cap of seamless steel, arched and crowned for strength no less than for beauty.

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And it is one of the most durable cars, for Body by Fisher, made weave-proof and rigid by the solid steel "Turret Top," matches in trouble-free length of life the stout dependability Pontiac engineers have built into the chassis.

To Pontiac, Body by Fisher extends its heartiest congratulations on an enviable ten years' record, and looks forward to many more years of happy association in the interest of Pontiac progress.

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THE MARK OF THE MODERN CAR

ONE-PIECE SOLID STEEL **"TURRET TOP"*** ***BODY BY*** *Fisher*

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MID-WEEK DIGEST

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SLOCUM PUBLISHING COMPANY

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Vol. 20, No. 2271 — DETROIT, WEDNESDAY, JANUARY 22, 1936 — $6 PER YEAR. THE MID-WEEK DIGEST IS NOT SOLD SINGLY.

--in the pink

A CONFIDENTIAL LETTER FROM THE EDITOR

ALTHOUGH the announcement comes from Alvan Macauley, president of the Automobile Manufacturers Assn., as to the new and vigorous campaign for safety on the highways which is to be instituted, it is understood that the industry as a whole is back of the effort. A little bird has whispered into the ear of this Paul Pry that Ford is in the lineup, marching step by step, not only with the AMA members, but along with manufacturers of tires and accessories. In other words, the industry is presenting a solid front in the effort to cooperate with this great movement. While no sum has been mentioned, it is understood the automobile industry will dig into its jeans for a substantial contribution that will furnish the necessary sinews of war to put into operation the co-ordinated working program which has been worked out.

* * *

AS I READ the release sent out by the AMA, it is apparent that Paul Hoffman, chairman of the safety traffic committee of AMA, has planned well for this campaign. Hoffman always has been a leader in the fight for highway safety and the nest egg of the present attack on the problem took the form of a grant of $54,000 to Harvard University for carrying on research activities, training of traffic control personnel and other functions of the Bureau for Street Traffic Research.

* * *

THAT HOFFMAN has studied out how much further the industry should go is demonstrated in the list of new activities to be tackled, such as stimulation of inter-city safety contests, renewal of public school safety lesson contests, expansion of schoolboy patrol and high school driver training work, vigorous support for law enforcement, dissemination of films, literature and educational material for a wide range of contacts with state and local civic and fraternal groups in the training of traffic control personnel and more effective co-operation with all agencies concerned through automobile dealers and car owners. In this connection, I think Hoffman's committee will be able to lean heavily upon such organizations as the National Safety Council, and the American Automobile Assn. and I wouldn't be surprised if the American Legion wheels into line, for the veterans can do a lot in this connection.

* * *

VIGOROUS ACTION from now on may be looked for from the automobile industry. This will not be a spasmodic campaign, with all the gunpowder burned up in this first announcement. The industry knows it is to be a long fight and from what I have heard listening at the keyhole I sorta feel that a distinct step forward in traffic safety is being taken under the new plan. I believe this because for the first time the automobile industry is presenting this solid front, everyone working for the common cause. Which again reminds me of my old favorite, "One for all, all for one."

* * *

THAT THE COURT has faith in Willys-Overland and believes there is a future for this old company which has been fighting valiantly through its receivership to regain its place in the sun, is found in the order Judge Hahn has promised to issue, granting Dave Wilson permission to manufacture 15,000 more cars. I understand there was opposition to this on the part of some of the bondholders who are on the other side of the fence, but the way Wilson has carried on as the receiver must have convinced the judge that Willys-Overland is far from being a dead duck in the pond.

* * *

WITH THIS ORDER in his hand Wilson ought to be able to complete his reorganization plans. He says he has on his books orders from dealers for 6,060 units, which will be produced under the new court order and has been forced to turn down 600 export orders. With such confidence in the Willys-Overland future on the part of the dealers, it is believed that the reorganization will soon be an accomplished fact. And I know the industry as a whole would rejoice thereat.

Chris Sinsabaugh

Mid-Week in the Industry

Output Eases Slightly as Dealer Stocks Near Replenishment; New Car Sales Hold; Used Car Stocks Gain on Coast; December Sales Estimated at 200,000 for Year High; December Truck Sales Set New Record

Output Pace Eased

Production rate in American and Canadian automobile plants was eased slightly last week with the total falling between 98,000 and 99,000 units, as against a total of approximately 101,000 during the previous week. The let-down was attributed largely to the fact that dealer stocks have been replenished and the industry is following its established policy of holding production in line with demand. A variation of 2,000 units from one week to another is not considered serious. The reduction has been well scattered and some plants have shown an increase. This is true in the case of Auburn, which will soon get under way on its new Cord models of which it hopes to build 1,000 during the coming month. Nash is proceeding at a better pace and the increase in Lincoln output has boosted the Ford total.

ADN PRODUCTION ESTIMATE

	Week Ended Jan. 18	Total to Date 1936	Week Ended Jan. 11
Ford	22,000	54,000	23,000
Chevrolet	20,000	52,000	23,000
Plymouth	*11,500	*28,000	12,500
Dodge	6,900	20,150	7,100
Pontiac	2,986	8,376	3,685
Oldsmobile	4,047	9,933	4,220
Buick	4,100	7,800	3,700
Hudson-Terraplane	2,800	7,100	2,800
Packard	1,217	2,833	1,216
Graham	630	1,505	630
Studebaker	1,614	3,641	1,962
Cadillac-LaSalle	640	1,640	720
Nash-LaFayette	950	2,464	1,024
Willys	715	1,747	621
De Soto	*1,750	*3,000	*1,900
Chrysler	1,600	4,100	1,800
Reo	238	510	244

*Revised.

Sales Are Firm

Reports from the field indicate a good demand at the present time for new cars, with actual closings of orders being hampered in some cases by used car stocks which have made dealers cautious about over-trading. A drawback to used car sales is seen in the reduction of finance charges on new cars, which has tended to make the new car more alluring than the used car. To offset this, Aaron DeRoy Motor Car Co., Detroit, has adopted a system of free financing for used cars, which is claimed to be working out advantageously. The DeRoy plan will be reported fully in Automotive Daily News, Jan. 25.

* * *

Coast Stocks Gain

Used car stocks as reported by 26 members of the Motor Car Dealers Assn. of San Francisco showed an increase from 1,866 units at the end of November to 2,402 units at the end of December. The average value of cars in inventory increased from $357 in November to $362 in December. As compared with the same month a year ago, the inventory total at the end of December increased from 1,615 units in December, 1934, to 2,402 units at the same time this year. Average values of cars in inventory increased from $355 in December last year to $362 in December, 1935. On the other hand sales of used cars during December, 1935, increased from 897 a year ago to 1,450 in 1935. That this increase entailed a greater loss on the part of dealers is indicated by the fact that the average selling price during December, 1935, was $293 as compared with $298 in November and $317 in December a year ago. The average loss per used car in December is placed at $69 per car. The high peak in losses during the year occurred in September when the average loss was $89 per car. The next high was in May when losses reached $75 per car and October when the loss was $70 per car. Summarizing the entire year's operation, however, used car average per cent of loss on the sales price was 20.91 per cent against a five-year average of 23.78 per cent.

* * *

December Sales 200,000

Preliminary estimates based upon reports from 22 states indicate a new car registration total for December of 200,000 units, according to R. L. Polk & Co. The states reporting represent 24.52 per cent of the entire country. Commercial cars, on an estimate based on information for 16 states, are placed at 35,000 for December. This marks an all-time high for the month with the best previous record being in 1929, when 23,275 units were registered.

Mid-Week Automotive News Bulletin

Up to 1:00 P.M., Tuesday, Jan. 21

Chrysler Shipments Up

Detroit.—Shipments of passenger cars and trucks of Chrysler Corp. during 1935 were 41 per cent greater than shipments during the preceding year. In 1935 shipments of Plymouth, Dodge, De Soto and Chrysler passenger cars and Dodge trucks totaled 842,520 units as against 593,683 units shipped during 1934.

Shipments for the entire year 1935 were nearly 245,000 units ahead of shipments in 1934.

Cudlip Resigns

Detroit—Announcement of the resignation of M. A. Cudlip as vice-president and secretary of the Packard Motor Car Co. is made by President Alvan Macauley. "He has been with us nearly 18 years and leaves with our very best wishes for success in his new venture," said Macauley in making public Cudlip's resignation. Macauley at the same time announced that Hugh J. Ferry has been promoted to secretary as well as treasurer of the company. A. C. Bennett was named assistant secretary and assistant treasurer.

GM Overseas Sales

New York.—Oversea sales of General Motors cars and trucks, from all sources, totaled 25,998 units in December, representing a gain of 14.3 per cent over November, and a gain of 58.3 per cent over December, 1934. The figure is the highest for December ever recorded.

For the complete year 1935, General Motors overseas volume totaled 284,281 units an increase of 28.9 per cent over the 220,560 sold in 1934. The 1935 volume marks a full return to the levels prevailing in the peak years of 1928 and 1929.

Cadillac Sales Gain

Detroit. — Cadillac-LaSalle retail sales in December were the largest for any December since 1928. Sales showed increases in each of the 10-day reporting periods and for the final third of the month deliveries at retail were nearly two and one-half times larger than corresponding 1934 period, according to Don E. Ahrens, general sales manager.

Sales for 1935 were the largest since 1930.

To Make 15,000 Willys

Toledo.—David R. Wilson, receiver for the Willys-Overland Co., was granted permission to make 15,000 additional cars to keep the factory open pending reorganization in a hearing before Judge George Hahn in U. S. District Court. It is the sixth grant made.

Attorneys for the receiver asserted negotiations for reorganization have progressed to a point where they undoubtedly will be carried out. Testimony was introduced to show that a gross profit of $17,436 has been made on 20,428 cars sold, or $8.59 per car.

(Continued on Page 4)

1936
XUM

Current List for 1936

(Corrected as of Jan. 21, 1936)

AUBURN, 6-cyl., Model 653—Brough., $745; broug. custom, $852; broug. salon, $932; coupe, $835; coupe custom, $942; coupe salon, $990; sedan, $795; sedan custom, $903; sedan salon, $982; cab., $945; cab. custom, $1052; cab. salon, $1100; phae. sedan, $995; phae. sedan custom, $1103; phae. sedan salon, $1182. **8-cyl., Model 851**—Broug., $995; broug. custom, $1088; broug. salon, $1168; coupe, $1085; coupe custom, $1173; coupe salon, $1221; sedan, $1095; sedan custom, $1188; sedan salon, $1268; cab., $1225; cab. custom, $1313; cab. salon, $1361; phae. sedan, $1275; phae. sedan custom, $1368; phae. sedan salon, $1448. **Auburn Supercharger 8-cyl.**—Broug., $1445; 4-dr. sedan, $1545; conv. cab., $1675; 5-pass. phae. sedan, $1725; coupe, $1545; speedster, $2245.

BUICK, Series 40 Special—4-dr. 5-pass. sedan, trunk, $885; 2-pass. bus. coupe, $765; 4-pass. sport coupe, opera seat, $820; 4-pass. sport coupe, rble., $820; 4-pass. con. coupe, rble., $905; 2-dr. 5-pass. victoria coupe, trunk, $835. **Series 60 Century**—4-dr. 5-pass. sedan, trunk, $1090; 4-pass. sport coupe, opera seat, $1035; 4-pass. sport coupe, rble., $1035; 4-pass. conv. coupe, rble. seat, fender well only, $1135; 2-dr. 5-pass. victoria coupe, trunk, $1055. **Series 80 Roadmaster**—4-dr. 6-pass. sedan, trunk, $1255; 6-pass. conv. phaeton, trunk, fender well only, $1565. **Series 90 Limited**—4-dr. 8-pass. sedan, trunk, fender well only, $1845; 8-pass. sedan-lim., trunk, fender well only, $1945; 4-dr. 6-pass. sedan, trunk, fender well only, $1695.

CADILLAC V-8, Series 60—2-pass. conv. coupe, $1725; 2-pass. coupe, $1645; 5-pass. tour. sedan, $1695. **Series 70**—2-pass. conv. coupe, $2695; 5-pass. conv. sedan, $2745; 2-pass. coupe, $2595; 5-pass. tour. sedan, $2445. **Series 75**—5-pass. conv. sedan, $3395; 5-pass. sedan, $2645; 5-pass. tour. sedan, $2645; 5-pass. formal sedan, $3395; 5-pass. town sedan, $3145; 7-pass. sedan, $2795; 7-pass. Imperial, $2995; 7-pass. Imperial tour. sedan, $2995; 7-pass. town car, $4445.

CADILLAC V-12, Series 80—2-pass. conv. coupe, $3395; 5-pass. conv. sedan, $3445; 2-pass. coupe, $3295; 5-pass. tour. sedan, $3145. **Series 85**—5-pass. conv. sedan, $4095; 5-pass. sedan, $3345; 5-pass. tour. sedan, $3345; 5-pass. formal sedan, $4095; 5-pass. town sedan, $3845; 7-pass. sedan, $3495; 7-pass. tour. sedan, $3495; 7-pass. Imperial, $3695; 7-pass. tour. Imperial, $3695; 7-pass. town car, $5145.

CADILLAC V-16, Series 90—5-pass. conv. sedan, $7950 5-pass. town sedan, $7450; 7-pass. sedan, $7550; 7-pass. limousine, $7750.

CHEVROLET, Std. 6 cyl.—Sedan, $575; coach, $510; coupe, $495; town sedan, $535; sport sedan, $600; sedan delivery, $535. **Master De Luxe**—Coach, $580; sedan, $640; town sedan, $605; sport sedan, $665; business coupe, $560; sport coupe, $590.

CHRYSLER, 6-cyl.—Business coupe, $760; rumble seat coupe, $825; touring brougham, $825; touring sedan, $875. **De Luxe Eight**—Business coupe, $925; touring brougham, $995; rumble seat coupe, $995; touring sedan, $1045. **Airflow Eight**—6-pass sedan, $1345; 6-pass. coupe, $1345. **Airflow Imperial**—6-pass coupe, $1475; 6-pass. sedan, $1475.

DE SOTO, Airstream—De luxe bus. coupe, $695; de luxe tour. brougham, $770; de luxe tour. sedan, $810; custom bus. coupe, $745; custom rumble seat coupe, $795; custom tour. brougham, $825; custom tour. sedan, $865. **Airflow**—6-pass. sedan, $1095; coupe with auxiliary seats, $1095.

DODGE—Bus. coupe, $640; r. s. coupe, $695; 2-dr. sedan, $695; 2-dr. tour. sedan, $720; 4-dr. sedan, $735; 4-dr. tour. sedan, $760.

FORD—5-win. coupe, $510; tudor sedan, $520; fordor sedan, $580; de luxe 5-win. coupe, $555; de luxe roadster (rumble seat), $560; de luxe tudor sedan, $565; de luxe 3-win. coupe, $570; de luxe phaeton, $590; tudor tour. sedan, $590; de luxe fordor sedan, $625; cabriolet, $625; fordor tour. sedan, $650; convertible sedan, $760.

GRAHAM, Supercharger Model—2-dr. tour. sedan with trunk, $895; 2-dr. tour. sedan with luggage comp., $865; 4-dr. tour. sedan with trunk, $925; coupe with r. s., $895; bus. coupe, $865; custom 4-dr. tour. sedan with trunk, $1170. **Cavalier**—2-dr tour. sedan with trunk, $795; 2-dr. tour. sedan with luggage comp., $765; 4-dr. tour. sedan with trunk, $825; 4-dr. tour. sedan with luggage comp., $795; coupe with r. s., $795; bus. coupe, $765. **Crusader**—2-dr. sedan with trunk, $665; 2-dr. tour. sedan with luggage comp., $635; 4-dr. tour. sedan with trunk, $695; 4-dr. tour. sedan with luggage comp., $665.

HUDSON, 6-cyl. Custom Series—Brougham, $730; tour. brougham, $755; sedan, $735; tour. sedan, $810; 4-pass. coupe, $755; 2-pass coupe, $710. **6-cyl. De Luxe Series**—Brougham, $790; tour. brougham, $815; sedan, $855; tour. sedan, $890; 4-pass. coupe, $810; 2-pass. coupe, $760. **8-cyl. Custom Series**—Brougham $885; tour. brougham, $910; sedan, $950; tour. sedan, $975; 4-pass. coupe, $895; 2-pass. coupe, $845.

HUPMOBILE, Series "Q" 608 Six—Special 2-dr. sedan, $815; special 2-dr. tour. sedan, $850; special 4-dr. sedan, $855; special 4-dr. tour. sedan, $890; bus. coupe without r. s., $795; coupe with r. s., $840; custom 2-dr. sedan, $890; custom 2-dr. tour. sedan, $925; custom 4-dr. sedan, $930; custom 4-dr. tour. sedan, $965 custom bus. coupe without r. s., $870; custom coupe with r. s., $915. **Series "N" 621 Eight**—Special 2-dr. sedan, $995; special 2-dr. tour. sedan, $1035; special 4-dr. sedan, $1035; special 4-dr. tour. sedan, $1075; coupe with r. s., $1035; custom 2-dr. sedan, $1095; custom 2-dr. tour. sedan, $1135; custom 4-dr. sedan, $1135; custom 4-dr. tour. sedan, $1175; custom coupe with r. s., $1135.

LAFAYETTE—3-pass. coupe, $595; 5-pass. coupe, $665; victoria, $625; victoria with trunk, $655; sedan, $675; sedan with trunk, $700; cabriolet, price later.

LA SALLE—2-pass. conv. coupe, $1255; 2-pass. coupe, $1175; 5-pass. tour. coupe, $1185; 5-pass. tour. sedan, $1225.

LINCOLN-ZEPHYR—2-dr. sedan, $1275; 4-dr. sedan, $1320.

NASH, "400" Series—3-pass. coupe, $665; 5-pass. coupe, $715; victoria, $690; victoria with trunk, $720; sedan, $740; sedan with trunk, $765. **"400" De Luxe Series**—3-pass. coupe, $675; 5-pass. coupe, $725; victoria, $715; victoria with trunk, $745; sedan, $765; sedan with trunk, $790; cabriolet, price later. **Ambassador Series**—Tour. victoria, $835; tour. sedan, $885; super eight tour. sedan, $995.

OLDSMOBILE Six—Bus. coupe, $665; sport coupe, $730; 5-pass. coupe, $730; conv. coupe, $805; 5-pass. tour. coupe, $755; 5-pass. 4-dr. sedan, $795; 5-pass. 4-dr. tour sedan, $820. **Eight**—Bus. coupe, $810; sport coupe, $845; 5-pass. coupe, $845; 5-pass. tour. coupe, $870; 4-dr. sedan, $935; conv. coupe, $935; 5-pass. 4-dr. sedan, $935.

PACKARD—120—Bus. coupe, 2-pass., $990; 2-4-pass. conv. coupe, $1110; 2-4-pass. sport coupe, $1030; 5-pass. tour. coupe, $1040; 5-pass. sedan, $1075; 5-pass. club sedan, $1090; 5-pass. tour. sedan, $1115. **Eight, Model 1400, 127" W.B.**—5-pass. sedan, $2385. **Model 1401, 134" W.B.**—5-pass. coupe, $2560; 2-4-pass. coupe, $2470; coupe rdstr., 2-4-pass., $2730; 4-pass. phae., $3020; 5-pass. club sedan, $2580; 5-7-pass. formal sedan, $3285; 5-pass. sedan, $2585; conv. victoria, 5-pass., $3270. **Model 1402, 139" W.B.**—Lim., 7-pass., $2890; 8-pass. bus. lim., $2765; 5-pass. conv. sedan, $3400; 8-pass. bus. sedan, $2630; 7-pass. tour., $3270. **Super Eight, Model 1403, 132" W.B.**—5-pass. sedan, $2990. **Model 1404, 139" W.B.**—5-pass. coupe, $3080; 2-4-pass. coupe, $2880; 2-4-pass. coupe rdstr., $3070; 4-pass. phae., $3390; 4-pass. sport phae., $3650; 5-pass. club sedan, $3170; 5-7-pass. formal sedan, $3800; 5-pass. conv. Victoria, $3860. **Model 1405, 144" W.B.**—7-pass. lim., $3580; 8-pass. bus. lim., $3455; 5-pass. conv. sedan, $4010; 7-pass. sedan, $3390; 8-pass. bus. sedan, $3265; 7-pass. tour., $3690. **Twelve, Model 1407, 139" W.B.**—5-pass. coupe, $3990; 2-4-pass. coupe, $3820; 2-4-pass. coupe-rdstr., $3850; 4-pass. phae., $4190; 4-pass. sport phae., $4490; 5-pass. club sedan, $4060; 5-7-pass. formal sedan, $4660; 5-pass. sedan, $3960; conv. victoria, 5-pass., $4890. **Model 1408, 144" W.B.**—7-pass. lim., $4485; 5-pass. conv. sedan, $5050; 7-pass. sedan, $4285; 7-pass. tour., $4490.

PIERCE-ARROW, Model 1601—139-in. w. b. chassis, spare wheel on rear, $2650; 5-pass. sedan, $3195; 5-pass. club sedan, $3295; coupe with r. s., $3195; conv. coupe rdst. with r. s., $3295; 144-in. w. b. chassis, spare wheel on rear, $2875; 7-pass. sedan, $3500; 7-pass. enclosed drive lim., $3650; Brunn met. town brougham, $5295; 147-in. w. b. 9-pass. com. sedan, $3400. **Model 1602**—139-in. w. b. chassis, spare wheel on rear, $3150; 5-pass. sedan, $3695; 5-pass. club sedan, $3795; coupe with r. s., $3695; conv. coupe rdst. with r. s., $3795; 144-in. w. b. chassis, spare wheel on rear, $3375; 7-pass. sedan, $4000; 7-pass. enclosed drive lim., $4150; Brunn met. town brougham, $5795. **Model 1603**—147-in. w. b. chassis, spare wheel on rear, $4100; 7-pass. sedan, $4795; 7-pass. enclosed drive lim., $4995.

PLYMOUTH—Coupe, $510; 2-dr. sedan, $545; 4-dr. sedan, $590. **De Luxe**—Coupe, $580; rumb. seat coupe, $620; 2-dr. sedan, $625; 4-dr. sedan, $660; 2-dr. tour. sedan, $645; 4-dr. tour. sedan, $680.

PONTIAC, Master Six—Coupe, $615; sport coupe, $675; cabriolet, $760; 2-dr. sedan, $675; 2-dr. tour. sedan, $700; 4-dr. sedan, $720; 4-dr. tour. sedan, $745. **De Luxe Six**—coupe, $665; sport coupe, $720; 2-dr. sedan, $720; 2-dr. tour. sedan, $745; 4-dr. sedan, $770; 4-dr. tour. sedan, $795. **De Luxe Eight**—coupe, $730; sport coupe, $785; 2-dr. sedan, $770; 2-dr. tour. sedan, $795; 4-dr. sedan, $815; 4-dr. tour. sedan, $840.

REO, Standard—2-dr. coach, $795; 4-dr. sedan, $845. **De Luxe**—2-dr. brougham, $845; 4-door sedan, $895.

STUDEBAKER, Dictator—2-pass. bus. coupe, $665; 2-pass. custom coupe, $695; 4-pass. custom coupe, $720; St. Regis custom sedan, $725; St. Regis cruising sedan, $745; custom sedan, $755; cruising sedan, $775. **President**—2-pass. custom coupe, $965; 4-pass. custom coupe, $995; St. Regis custom sedan, $1015; St. Regis cruising sedan, $1035; custom sedan, $1045; cruising sedan, $1065.

TERRAPLANE, De Luxe Series—Brougham, $615; tour. brougham, $635; sedan, $670; tour. sedan, $690; 4-pass. coupe, $640; 2-pass. coupe, $595. **Custom Series**—Brougham, $665 tour. brougham, $685; sedan, $720; tour. sedan, $740; 4-pass. coupe, $690; 2-pass. coupe, $650.

WILLYS—Coupe, $395; std. sedan, $425; de luxe sedan, $450; cab pickup, $395; panel delivery, $415.

New Passenger Car Registrations, 2

Figures supplied by R. L. Polk & Co. with exception of New Jersey, supplied by New Jersey M

STATES		CHRYSLER GROUP					FORD GROUP			GENERAL MOTORS GROUP					
		Chrysler	De Soto	Dodge	Plymouth	Totals	Ford	Lincoln	Totals	Buick	Cadillac	Chevrolet	LaSalle	Oldsmobile	Pontiac
Arkansas	'35	7	4	27	57	95	176		176	10		194	1	14	2
	'34	1	1	6	36	44	68		68	5		208		7	
Delaware	'35	8	1	22	74	105	117		117	56	7	205	5	60	4
	'34	3	1	3	35	42	37		37	15	2	57	2	9	
Florida	'35	43	29	196	511	779	902	14	916	175	19	1210	25	194	13
	'34	28	11	68	293	400	353	2	355	105	4	678	6	38	6
Georgia	'35	19	9	45	135	208	304	7	311	57	10	339	11	74	3
	'34	8	2	11	79	100	178		178	29	1	246	6	22	1
Idaho	'35	5	5	52	106	168	141	2	143	19		164	1	24	1
	'34	1	1	11	40	53	59		59	4		144		7	
Illinois	'35	297	226	1467	2417	4407	3959	60	4019	1066	99	3559	82	1236	87
	'34	68	36	189	568	861	585	6	591	243	20	1151	11	179	19
Kansas	'35	34	18	195	416	663	848	6	854	134	4	1353	4	163	17
	'34	5	3	19	90	117	185	1	186	22	1	538	1	22	2
Louisiana	'35	29	13	209	400	651	944	15	959	99	7	1274	9	170	9
	'34	9	10	65	226	310	171	2	173	40	3	580	5	43	1
Minnesota	'35	47	18	173	513	751	751	6	757	145	8	1228	5	133	14
	'34	28	3	16	189	236	213	1	214	39		638	1	18	1
Missouri	'35	38	35	234	543	850	982	17	999	194	20	1281	19	324	20
	'34	15	4	49	159	227	272	3	275	42	3	662	4	83	4
Montana	'35	5	1	31	51	88	92		92	10	1	95		8	
	'34	3	1	4	15	23	26		26	3		72		4	
Nebraska	'35	17	14	118	276	425	561	5	566	100	7	613	5	99	8
	'34	10	3	23	104	140	224	1	225	21	3	310		12	1
New Hampshire	'35	5	2	27	51	85	95	1	96	16	3	87	2	39	2
	'34	1	1	2	14	18	21		21	7		40		6	
North Carolina	'35	75	48	282	746	1151	1218	7	1225	187	10	1942	5	226	18
	'34	40	9	122	563	734	230	1	231	84	4	1379	8	59	9
North Dakota	'35	6	2	10	35	53	121		121	9		111		6	
	'34	5	1	1	27	34	7		7	6		91	1	2	
Pennsylvania	'35	505	311	1950	3831	6597	4609	63	4672	1404	112	5230	109	1477	124
	'34	261	73	541	1527	2402	1683	16	1699	524	33	2200	27	295	33
Rhode Island	'35	30	14	76	187	307	161	7	168	57	7	185	2	34	2
	'34	5	1	19	86	111	59		59	30		113	3	7	1
South Carolina	'35	22	4	98	211	335	511	7	518	61	2	618		62	5
	'34	9	4	45	159	217	135	1	136	26	1	523		18	2
South Dakota	'35	5	4	39	96	144	186		186	31	1	241	3	30	2
	'34	1	3	7	29	39	39	1	40	8		139		8	
Utah	'35	6	23	65	93	187	142	2	144	21	2	157	1	32	1
	'34	3	1	19	34	57	41		41	9		110		3	
Vermont	'35	10	1	37	65	113	109		109	31	4	123	4	34	2
	'34	5		2	24	31	31		31	12		33	1	2	
Virginia	'35	41	37	265	560	903	1051	7	1058	140	10	1743	6	126	17
	'34	23	6	41	138	208	366	2	368	45	3	505	2	31	3
West Virginia	'35	33	22	143	345	543	424	2	426	65	5	536	5	85	5
	'34	35	3	53	144	235	211	2	213	53	1	305	3	51	3
Wisconsin	'35	45	45	412	679	1181	1094	8	1102	243	18	1408	19	349	23
	'34	23	6	76	176	281	306		306	74	4	521	3	42	4
District of Columbia	'35	44	20	237	326	627	446	7	453	124	10	406	6	147	8
	'34	6	1	33	125	165	176		176	39	6	155		18	1
Total, 25 States for December	'35	1376	906	6410	12724	21416	19944	243	20187	4454	366	24302	329	5146	399
	'34	595	185	1425	4880	7085	5676	39	5715	1485	89	11398	84	986	99

NEW PASSENGER CAR REGISTRATION

MONTH		CHRYSLER GROUP					FORD GROUP			GENERAL MOTORS GROUP					
		Chrysler	De Soto	Dodge	Plymouth	Totals	Ford	Lincoln	Totals	Buick	Cadillac	Chevrolet	LaSalle	Oldsmobile	Pontiac
January	'35	1924	1261	8978	24873	37036	46306	115	46421	4240	297	26549	369	4453	5864
	'34	450	500	3960	9679	14589	25828	112	25940	2738	183	7223	69	557	2363
February	'35	2646	1458	11352	26886	42342	64957	113	65070	3651	316	29536	404	9220	8737
	'34	255	284	5990	16684	23213	28810	137	28947	3205	382	24851	32	1749	4206
March	'35	4283	2583	17506	34615	58987	94986	142	95128	5393	433	55733	500	14755	13449
	'34	1879	866	9657	30918	43320	46200	178	46378	4962	516	50796	153	4602	7259
April	'35	5204	3084	20302	42707	71297	105479	192	105671	6952	541	75083	1379	17661	16038
	'34	3529	1381	11527	34295	50732	61986	236	62222	6453	672	63501	782	8916	9612
May	'35	5217	2957	20092	43713	71979	93467	213	93680	7082	549	59209	1593	17930	16058
	'34	3713	1457	9058	33291	47519	68051	223	68274	5310	683	57795	962	9331	9237
June	'35	4778	2917	18693	40263	66651	83273	159	83432	6758	529	66054	1403	16421	14978
	'34	3228	1146	9220	34118	47712	64405	175	64580	8309	499	64580	762	9190	9031
July	'35	4542	3057	18951	40674	67224	83203	129	83332	6700	457	71226	1101	75632	15208
	'34	3257	1372	10031	38289	52949	63205	160	63365	7951	400	67026	593	9197	8618
August	'35	3443	2468	14888	32147	52946	61590	133	61723	4717	314	68281	1056	11839	11906
	'34	2922	1335	8420	33107	45784	54112	203	54315	5808	309	55507	446	8524	6602
September	'35	2284	1761	7413	17737	29195	43775	100	43875	4479	290	48994	740	6089	7427
	'34	2195	934	5894	24551	33574	41929	171	42100	4566	271	43003	370	6313	4697
October	'35	1535	1647	7719	16518	27419	38311	106	38417	12760	781	34869	1038	7807	8037
	'34	2844	968	6919	22247	32978	38652	183	38835	5167	330	38084	374	6342	4895
November	'35	1128	1350	15897	30321	48696	56578	180	56758	12612	1055	57379	1173	13356	11409
	'34	2432	720	5495	13475	22122	23284	186	23470	4741	395	36799	360	4809	3981
Total, 25 States for December	'35	1376	906	6410	12724	21416	19944	243	20187	4454	366	24302	329	5146	3997
	'34	595	185	1425	4880	7085	5676	39	5715	1485	89	11398	84	986	997
Total to Date	'35	38360	25449	168201	363178	595188	791869	1821	793690	79798	5928	617215	11085	140309	108
	'34	27299	11148	87596	295534	421577	522138	2003	524141	60695	4729	520563	4987	70516	1498

s, 25 States for December, 1935-1934

New Jersey Motor List Co., and Metropolitan New York area which are compiled by Sherlock & Arnold.

S GROUP			HUDSON GROUP			NASH GROUP			NON-AFFILIATED GROUP									
Oldsmobile	Pontiac	Totals	Terraplane	Hudson	Totals	LaFayette	Nash	Totals	Auburn	Graham	Hupp	Packard	Pierce-Arrow	Reo	Studebaker	Willys	Miscellaneous	TOTALS
14	24	243	10	2	12						1	4		1	5	1		538
7	4	224	3	1	4		1	1			1			1	3			346
60	42	375	12	7	19		1	1	1	2	1	23			6			650
9	3	88	7	6	13	2	2	4	1	1	2	4			8			200
194	134	1757	116	39	155	21	19	40	11	14	5	65		11	47	50	2	3852
38	65	896	41	19	60	13	10	23	19	9	15	16	1	5	33	22	41	1895
74	38	529	26	20	46	4	6	10		1		27			25	7		1164
22	16	320	15	8	23		2	2	5	1	1	9	2	1	20	7		669
24	16	224	15	3	18	5	8	13		5	1	6			22	5		605
7	3	158	4	1	5	1	2	3	1	5				1	8			293
1236	875	6917	424	176	600	101	184	285	34	81	28	384	4	20	282	11	4	17076
179	196	1800	63	35	98	36	50	86	40	35	18	28	9	8	96	3	5	3678
163	175	1833	132	43	175	27	22	49	1	10	3	23	1	3	51	1		3667
22	27	611	22	9	31	2	2	4	4	2		2		2	24		1	984
170	90	1649	21	12	33	21	20	41	1	3	3	50			53	6		3449
43	11	682	13	7	20	19	11	30	3	5	4	6			35	5	7	1280
133	148	1667	116	17	133	11	14	25	1	7	4	36		3	59	1		3444
18	14	710	27	13	40	7	2	9	4	9	16	1	1	2	23		1	1266
324	203	2041	56	18	74	21	27	48	3	6	6	53	1	4	49			4134
83	40	834	20	10	30	11	10	21	7	9	3	7	2		23			1438
8	6	120	23	11	34	2	4	6	1		2	3			7	1		354
4	2	81	2		2		3	3					2		2			139
99	84	908	26	16	42	12	10	22		3	13	20			32			2031
12	14	360	8	8	16	8	3	11	2	2	2	3		1	17			779
39	25	172	22	9	31	3	7	10	1	3	3	2		1	15	3	2	424
6	1	54		1	1	4	3	7		2	2		1		3			109
226	183	2553	122	32	154	26	11	37	6	22	1	75		2	45	9		5280
59	99	1633	79	40	119	13	5	18	6	17	11	2			39	5	4	2819
6	2	128	6	1	7	3	4	7							3			319
2	3	103	3	1	4	1		1	1					1	2			153
1477	1245	9577	593	216	809	110	192	302	20	138	72	562	23	40	368	22	14	23216
295	331	3410	231	100	331	84	108	192	30	79	95	85	10	32	222	6	14	8607
34	29	314	34	10	44	3	7	10	1	1	4	19	1	1	7		2	879
7	11	164	20	4	24	5	13	18		1	5	1	2	1	8			394
62	50	793	48	11	59				1	1	4	23			14	9		1757
18	24	592	20	9	29	2	1	3	8	5	10	1			18	5	4	1028
30	26	332	21		21	5	6	11				4		3	11	1		713
8	4	159	5	1	6	2	2	4						1	11		1	261
32	19	232	18	10	28	15	6	21	1	5	1	13			25	3		660
3	6	128	5	2	7	3		3	1	1	1	1			11			251
34	28	224	19	16	35	3	2	5		2	1	11			8			508
2	3	51	10	2	12		1	1	1						5	1		133
126	177	2202	52	23	75	7	12	19	5	9	11	70	4	2	38	1		4397
31	32	618	22	11	33	5	5	10	6	18	9	3	1	3	22		1	1300
85	57	753	39	17	56	5	11	16		8	1	22		1	29	2		1857
51	30	443	31	9	40	12	11	23	5	7	7	4		5	13	1		996
349	235	2272	155	42	197	66	106	172	2	10	11	105	3	12	95	5		5167
42	40	684	33	13	46	45	28	73	1	16	79	6		5	39		1	1537
147	86	779	33	13	46	4	8	12	6	9	3	72	3		36	1	1	2048
18	18	236	17	4	21	3	1	4	4	5	11	5	2		17	1	1	648
5146	3997	38594	2139	764	2903	475	687	1162	96	340	179	1672	40	104	1332	139	25	88189
986	997	15039	701	314	1015	278	276	554	149	229	292	184	33	69	702	56	81	31203

TIONS REPORTED TO DATE 1935-1934

S GROUP			HUDSON GROUP			NASH GROUP			NON-AFFILIATED GROUP									
Oldsmobile	Pontiac	Totals	Terraplane	Hudson	Totals	LaFayette	Nash	Totals	Auburn	Graham	Hupp	Packard	Pierce-Arrow	Reo	Studebaker	Willys	Miscellaneous	Monthly Totals
4453	5864	41772	3010	1317	4327	851	833	1684	486	596	552	431	50	228	2677	267	108	136635
557	2363	13133	797	122	919		1468	1468	434	453	292	349	99	208	2242	506	610	61242
9220	8737	51864	3269	1264	4533	810	803	1613	423	900	440	348	39	194	2123	637	89	170615
1749	4206	34425	1805	767	2572	31	946	977	232	639	256	292	98	222	2228	355	431	94887
4755	13449	90263	4589	1844	6433	1216	1212	2428	482	1323	795	928	59	317	3304	974	56	261477
4602	7259	68288	4153	2223	6376	167	1418	1585	186	1173	317	421	144	222	4164	325	388	173287
7661	16038	117654	6156	2544	8700	1917	1748	3665	564	1891	947	3236	75	411	4527	952	62	319652
8916	9612	89936	5810	3169	8979	250	1501	1751	373	1838	516	646	189	261	4891	415	301	223050
7930	16058	102421	6113	2486	8599	1684	1593	3277	561	1838	877	3964	75	418	4479	981	52	293201
9331	9237	83318	5447	2703	8150	978	1738	2716	598	1537	656	516	211	519	4142	822	247	219225
6421	14978	106143	5704	2192	7896	1264	2144	3408	495	1728	724	4313	80	411	3966	1062	51	280360
9190	9031	92371	4663	1998	6661	1361	1343	2704	477	1291	670	582	193	466	5233	780	144	223864
5632	15208	110324	5454	2081	7535	1872	2081	3953	522	1763	727	4259	87	365	3913	1157	34	285195
9197	8618	93785	4209	1930	6139	1410	1216	2626	602	1532	694	841	220	467	4748	946	92	229006
1839	11906	98113	4583	1600	6183	2181	1702	3883	415	1570	627	3741	72	370	3317	860	31	233851
8524	6602	77196	3646	1692	5338	1341	961	2302	509	1288	662	635	184	394	3640	884	67	193198
6089	7427	68019	2782	1061	3843	1920	1374	3294	524	1234	492	2827	78	370	2726	594	27	157098
5313	4697	59220	2642	1247	3889	1038	907	1945	641	865	572	555	103	289	2554	562	62	146931
7807	8037	65292	2179	1030	3209	1492	1213	2705	358	1290	426	4970	108	288	2575	744	588	148389
6342	4895	55192	3293	1526	4819	1066	1132	2198	651	1003	616	636	90	310	3094	420	95	140937
3356	11409	96984	3962	1859	5821	1035	1133	2168	263	757	359	4493	73	233	1968	1137	552	220262
4809	3981	51085	2195	1028	3223	947	1022	1969	450	656	675	598	110	262	2511	308	135	107574
5146	3997	38594	2139	764	2903	475	687	1162	96	340	179	1672	40	104	1332	139	25	88189
986	997	15039	701	314	1015	278	276	554	149	229	292	184	33	69	702	56	81	31203
0309	[illegible]108	987443	49940	20042	69982	16717	16523	33240	5014	15230	7145	35165	836	3709	36907	9504	1850	2594903
0516	71498	782988	39361	18719	58080	8867	13928	22795	5302	12504	6218	6255	1674	3689	40149	6879	2658	1844404

Passenger Car Registrations

11 Months Plus 25 States for December, 1935-1934

MAKE	1935	Pos.	1934	Pos.	Unit Change
FORD	791,869	1	522,138	1	+269,731
CHEVROLET	617,215	2	520,563	2	+ 96,652
PLYMOUTH	363,178	3	295,534	3	+ 67,644
DODGE	168,201	4	87,596	4	+ 80,605
OLDSMOBILE	140,309	5	70,516	6	+ 69,793
PONTIAC	133,108	6	71,498	5	+ 61,610
BUICK	79,798	7	60,695	7	+ 19,103
TERRAPLANE	49,940	8	39,361	9	+ 10,579
CHRYSLER	38,360	9	27,299	10	+ 11,061
STUDEBAKER	36,907	10	40,149	8	— 3,242
PACKARD	35,165	11	6,255	17	+ 28,910
DE SOTO	25,449	12	11,148	14	+ 14,301
HUDSON	20,042	13	18,719	11	+ 1,323
LAFAYETTE	16,717	14	8,867	15	+ 7,850
NASH	16,523	15	13,928	12	+ 2,595
GRAHAM	15,230	16	12,504	13	+ 2,726
LASALLE	11,085	17	4,987	20	+ 6,098
WILLYS	9,504	18	6,379	16	+ 3,125
HUPP	7,145	19	6,218	18	+ 927
CADILLAC	5,928	20	4,729	21	+ 1,199
AUBURN	5,014	21	5,302	19	— 288
REO	3,709	22	3,689	22	+ 20
LINCOLN	1,821	23	2,003	23	— 182
PIERCE-ARROW	836	24	1,674	24	— 838
MISCELLANEOUS	1,850		2,653		— 803
TOTAL	2,594,903		1,844,404		+750,499

Geographical Analysis

November, 1935-1934

COMMERCIAL CARS

	1935	1934	Unit Change	Percentage Change
New England	2,768	2,102	+ 666	+31.6
Middle Atlantic	6,374	4,809	+1,565	+32.5
South Atlantic	4,919	4,371	+ 548	+12.5
E. North Central	6,999	4,870	+2,129	+43.7
E. South Central	3,893	2,446	+1,447	+59.1
W. North Central	3,811	3,183	+ 628	+19.7
W. South Central	4,162	3,308	+ 854	+25.8
Mountain States	1,649	1,634	+ 15	+00.9
Pacific States	3,041	1,966	+ 822	+41.8
TOTAL	37,616	28,689	+8,927	+31.1

State by State

	1935	1934	Unit Change
NEW ENGLAND	2,768	2,102	+ 666
Maine	240	263	— 23
New Hampshire	166	206	— 40
Vermont	151	195	— 44
Massachusetts	1,363	805	+ 558
Rhode Island	147	152	— 5
Connecticut	701	481	+ 220
MIDDLE ATLANTIC	6,374	4,809	+1,565
New York	2,872	2,232	+ 640
New Jersey	933	728	+ 205
Pennsylvania	2,569	1,849	+ 720
SOUTH ATLANTIC	4,919	4,371	+ 548
Delaware	59	48	+ 11
Maryland	537	296	+ 241
District of Columbia	235	171	+ 64
Virginia	846	791	+ 55
West Virginia	485	399	+ 86
North Carolina	898	744	+ 154
South Carolina	471	515	— 44
Georgia	701	552	+ 149
Florida	687	855	— 168
E. NORTH CENTRAL	6,999	4,870	+2,129
Ohio	1,965	1,230	+ 735
Illinois	1,170	1,305	— 135
Indiana	1,210	806	+ 404
Michigan	1,978	901	+1,077
Wisconsin	676	628	+ 48
E. SOUTH CENTRAL	3,893	2,446	+1,447
Kentucky	677	502	+ 175
Tennessee	846	497	+ 349
Alabama	1,681	1,058	+ 623
Mississippi	689	389	+ 300
W. NORTH CENTRAL	3,811	3,183	+ 628
Minnesota	841	586	+ 255
Iowa	778	625	+ 153
Missouri	1,051	855	+ 196
North Dakota	150	107	+ 43
South Dakota	144	217	— 73
Nebraska	434	374	+ 60
Kansas	413	419	— 6
W. SOUTH CENTRAL	4,162	3,308	+ 854
Arkansas	409	317	+ 92
Louisiana	524	389	+ 135
Oklahoma	969	582	+ 387
Texas	2,260	2,020	+ 240
MOUNTAIN STATES	1,649	1,634	+ 15
Montana	230	212	+ 18
Idaho	215	201	+ 14
Wyoming	108	147	— 39
Colorado	383	311	+ 72
New Mexico	261	326	— 65
Arizona	216	171	+ 45
Utah	168	193	— 25
Nevada	68	73	— 5
PACIFIC STATES	3,041	1,966	+1,075
California	2,381	1,559	+ 822
Oregon	361	202	+ 159
Washington	299	205	+ 94
TOTAL	37,616	28,689	+8,927

1936
XUM

New Commercial Car Registrations, 12 States for December, 1935-1934

Figures supplied by R. L. Polk & Co. with exception of New Jersey, supplied by New Jersey Motor List Co., and Metropolitan New York area which are compiled by Sherlock & Arnold.

STATES		Austin	Autocar	Brockway	Buick	Chevrolet	Diamond-T	Dodge	Federal	Ford	G.M.C.	Indiana	International	Mack	Plymouth	Reo	Sterling	Stewart	Studebaker	Terraplane	White	Willys	Miscellaneous	TOTAL
Arkansas	'35					115	1	30		77	1		27			1					2			254
	'34					64	1	18		23	1		7											114
Delaware	'35		1	1		37		5		50	2		10							1	1			108
	'34					15		16		28	4		7						1					71
Idaho	'35					32	1	26		40		1	31			1				1		1		134
	'34					34	2	30		30			6											102
Kansas	'35				1	207	3	52		242	44		48	3	1	1			1		2		2	607
	'34	1				177	5	21		56	6		17			1				1			1	286
Missouri	'35					320	6	72	6	311	80		73	2		8							1	879
	'34					221	6	115		89	14	1	51	1					1		2		5	506
Montana	'35					20	2	8	3	28	1		20							1		2		85
	'34					31		10		12			6						1				1	61
North Carolina	'35					369	15	233		323	14	2	87	4	5	1					13	7	2	1075
	'34	1				356	10	108		160	12	1	69		1	1			1	4	8		9	741
North Dakota	'35					20	1	4		21	9		13			2							2	72
	'34				1	29	1	12		7			9										1	60
South Carolina	'35					163	1	49		116	73	2	18	1							1	3		427
	'34	2			1	133		52	1	54	4	1	9							1	4		9	271
South Dakota	'35					45	2	19		50			20			2			1		2			141
	'34					45	3	15	1	25	2		13			4								108
Vermont	'35			3		52	1	19		69	2	1	17			4		1					1	170
	'34					29	2	87		10	3		15			4							4	154
Wisconsin	'35					253	6	105	1	248	13	1	82		4	4			1		4	1	13	736
	'34				2	166	12	52	3	119	'16		59	2		6	1	1	3	1	5		5	453
Total 12 States for December	'35		1	4	1	1633	39	622	10	1575	239	7	446	10	10	24		1	3	3	25	14	21	4688
	'34	4			4	1300	42	536	5	613	62	3	268	3	1	16	1	1	7	7	19		35	2927

Commercial Car Registrations to Date, 1935-1934

STATES		Austin	Autocar	Brockway	Buick	Chevrolet	Diamond-T	Dodge	Federal	Ford	G.M.C.	Indiana	International	Mack	Plymouth	Reo	Sterling	Stewart	Studebaker	Terraplane	White	Willys	Miscellaneous	TOTALS
January	'35	35	71	86	28	9867	550	5141	152	13260	858	27	3513	114	5	380	10	42	127	29	281	9	174	34759
	'34	62	79	91	8	8917	406	2581	120	6650	555	80	2284	161	6	289	9	61	98	8	204	2	232	22908
February	'35	34	41	54	12	11701	499	3271	113	14330	570	13	3174	63	3	292	10	34	107	15	204	69	188	34797
	'34	68	58	81	6	10718	420	2723	121	6459	453	57	2150	144	8	339	14	60	109	4	300	5	179	24476
March	'35	30	56	67	22	13744	534	4284	132	16805	850	14	3673	100	8	389	14	60	135	34	244	138	178	41511
	'34	84	64	117	16	15112	501	4154	170	8632	717	61	2841	145	9	461	10	67	126	6	391	2	198	33884
April	'35	14	79	109	21	15024	568	5708	177	17943	870	24	4554	159	18	449	31	62	189	90	285	152	259	46785
	'34	73	88	104	14	15050	534	4367	178	13167	839	64	2729	206	9	527	4	90	123	23	494	2	197	38882
May	'35	17	78	97	14	16284	570	5381	193	17591	883	27	4807	189	54	616	5	60	229	72	267	224	310	47968
	'34	63	146	117	20	14148	508	4441	186	14390	1031	45	2849	212	10	578	10	103	193	88	499	1	193	39831
June	'35	13	73	113	5	17576	572	4911	178	17385	901	38	4710	103	87	439	16	69	218	108	220	266	242	48243
	'34	22	95	108	10	12981	481	3729	196	12205	884	43	2435	154	15	504	9	67	133	72	404	1	230	34778
July	'35	10	99	114	4	18608	593	5336	202	18073	857	103	5308	147	129	439	19	85	219	86	233	298	281	51243
	'34	17	99	147	11	14704	457	4224	182	12492	951	44	2548	202	16	416	17	67	156	67	352		321	37490
August	'35	5	91	143	1	18554	591	5723	219	16429	1312	118	5231	145	110	476	9	94	264	77	236	253	274	50355
	'34	6	61	107	11	15790	508	4754	162	14055	1033	41	2809	143	15	439	15	56	138	52	296	7	292	40790
September	'35	7	76	128	1	13783	555	5901	209	14126	1362	110	5199	111	51	427	9	94	188	65	437	254	141	43234
	'34	5	118	74	12	15159	420	4086	158	12250	1240	39	2538	103	9	369	3	31	153	62	199	1	196	37225
October	'35	5	94	143	3	10310	608	7241	206	13270	1096	220	5845	503	48	604	17	104	233	33	686	218	1756	43243
	'34	24	169	118	10	15723	535	4669	200	13544	1106	156	3238	146	11	364	16	52	212	57	304	2	222	40878
November	'35	5	91	117	4	10944	384	4668	227	14270	813	106	4183	194	35	302	17	91	138	13	394	202	418	37616
	'34	26	85	79	18	11296	305	3868	150	8060	886	69	2626	116	9	393	8	40	131	40	267	1	216	28689
Total 12 States for December	'35		1	4	1	1633	39	622	10	1575	239	7	446	10	10	24		1	3	3	25	14	21	4688
	'34	4			4	1300	42	536	5	613	62	3	268	3	1	16	1	1	7	7	19		35	2927
Total to Date	'35	175	845	1138	114	156287	5980	57476	1997	173659	10337	737	49865	1384	550	4574	157	782	2004	625	2959	2097	2371	476113
	'34	454	1062	1143	140	150888	5117	44132	1828	122517	9757	702	29315	1735	118	4695	116	695	1579	486	3729	24	2511	382743

Late News Flashes

(*Continued from Page* 1)

Depreciation and taxes, however, caused a net loss of $249,427. Cash impounded through sales of plants and machinery now totals $1,100,000. Delinquent taxes approximate $1,000,000.

The bonds are now selling for 70 cents on the dollar as compared with 20 cents soon after the receivership was brought, a witness testified. Attorneys for a creditors' committee stated they would not oppose the present order but will oppose any request for future ones if reorganization does not get well under way during the term of the present order.

Auburn Net Loss

Chicago. — Auburn Automobile Co. and subsidiaries in report for fiscal year ended November 30, 1935, certified by independent auditors, shows net loss of $2,697,852 after depreciation, minority interest, write-down of patterns, dies, jig and fixtures, mark-down of inventories and after subsidiary preferred dividends. This compares with net loss of $3,642,499 in preceding year.

Current assets as of Nov. 30, 1935, including $180,660 cash, amounted to $3,865,831 and current liabilities were $1,940,784 compared with cash of $1,112,541, current assets of $5,681,364 and current liabilities of $649,078 at end of November 30, of preceding year.

Bloch New Mohawk Head

Akron, O.—Ray E. Bloch has been appointed president of the Mohawk Rubber Co. Bloch entered the rubber industry at the B. F. Goodrich Co., going to Mohawk when that organization was completed. He had been secretary to S. S. Miller, chairman of the board and Mohawk's first president, assistant treasurer, treasurer and vice-president. He has also served on the executive committee of the Rubber Manufacturers' Assn. Bloch succeeds Charles Borland, who has resigned to devote all his time to the general managership of the Federal Electric Co. of Chicago. Bloch announced that a new financing plan will be completed this month which will improve the financial position of Mohawk. Another Mohawk change is that of J. T. Stubbs to the position of secretary to succeed L. T. Noel, resigned.

Republic Steel Moves

Youngstown, O.—Effective Jan. 25, the general offices of Republic Steel Corp. will be removed from Youngstown to Cleveland. The offices will occupy floors 13 to 16, inclusive, in the former Medical Arts Bldg., recently renamed the Republic Bldg. The move consolidates the general offices which have been located in Youngstown, the executive and Cleveland district sales offices formerly in the Union Trust Bldg., Cleveland, and the advertising department., Massillon, O. The sales offices of the Newton Steel Co. will also be located in the Republic Bldg., Cleveland.

To Discuss Toledo Plan

Toledo, O.—The Toledo Plan for Industrial Peace will be discussed over WABC, Columbia coast-to-coast network, Jan. 23, from 3:00 to 3:30 p.m. EST. The Toledo Plan aims at peaceful settlement of labor disputes by mediation, before they develop into strikes or lockouts. The Toledo Peace Board, established under this plan, consists of 18 members: five representatives of labor, five representatives of management, and eight impartial citizens-at-large. The principal speaker on the program will be Edward F. McGrady, U. S. assistant secretary of labor, and founder of the plan, who will speak from Washington.

Hudsons Gain Sharply

Detroit.—Retail sales of Hudson and Terraplane cars in the United States during December totaled 8,879 cars. This represents a gain of 39 per cent as compared with the preceding month and a gain of 211 per cent as compared with the same month of the preceding year. The December sales of 8,879 cars bring the total of retail sales in the United States for the full year 1935 to a figure of 78,745, a gain of 26 per cent over the 1934 total, and 96 per cent over the 1933 total. United States retail sales in 1935 were greater than for any year since 1930.

Arthur Kales

San Francisco.—Arthur Kales, veteran automotive advertising executive, died here last week.

For the past 15 years Mr. Kales had been advertising manager for Earle C. Anthony, Inc., California distributor for Packard, Hudson and Terraplane motor cars. During his period of service with the Anthony organization, Kales directed the extensive newspaper, billboard and radio advertising campaign of the state-wide distributorship and he also managed Anthony's radio station, KFI, Los Angeles, developing that station to a point where it is recognized as an outstanding broadcasting project.

Kales was a graduate of the University of California at Berkeley, where he first met Earle C. Anthony. Mr. Kales was credited with developing the first neighborhood service station on the Pacific Coast. He served for a number of years with the Standard Oil Co. of California as advertising manager.